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Learning from Animals: Natural History for Children in the Eighteenth and Nineteenth Centuries

Harriet Ritvo

The first zoological book intended for English children, *A Description of Three Hundred Animals*, appeared in 1730. Published by Thomas Boreman, it was part of a mid-eighteenth century boom in juvenile literature, created by publishers rushing to cater to a market that had been virtually nonexistent before 1700. Because both the authors and the purchasers of children's books understood them primarily as educational tools, not as instruments of entertainment, it is not surprising that the natural world, especially animate nature, was quickly recognized as a source of useful information and instructive moral precepts.¹ By 1800, according to one bibliographer's count, at least fifty children's books about animals, vegetables, and minerals had been published.²

In the middle of the eighteenth century, knowledge about nature was accumulating rapidly. Natural history had become both a prestigious scientific discipline and a popular avocation.³ An eager adult public awaited the dissemination of information collected by Enlightenment naturalists. Some had the training, patience, and money to appreciate such focused and elaborate treatments as William Borlase's *Natural History of Cornwall* (1758) or Thomas Penant's *Arctic Zoology* (1784–87). But most awaited the popular distillations of such works. The versatile Oliver Goldsmith provided one of the most successful, an eight-volume compilation entitled *An History of the Earth and Animated Nature* (1774). He was plundered in his turn by several generations of literary naturalists eager to supply the popular demand, including many authors who targeted the growing juvenile audience.

Although natural history was a new literary genre in the eighteenth century, animals were hardly new literary subjects. They

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figured prominently in Aesop's fables, which were frequently used as school texts in the sixteenth and seventeenth centuries. The fables, however, were not really about animals. As Thomas Bewick, a distinguished illustrator and publisher of animal books, explained in the preface to his 1818 edition of *The Fables of Aesop*, they "delineate the characters and passions of men under the semblance of Lions, Tigers, Wolves and Foxes."⁴ Nevertheless, because the animals were supposed to bear some temperamental resemblance to the human characters they represented, the fables have always been perceived as animal stories as well as moral tales.

But fables exerted only an oblique influence on natural history writing. The impact of the bestiary tradition, which also had classical roots, was more direct and definitive. Bestiaries were illustrated catalogues or compendia of actual and fabulous animals. They can be regarded as forerunners of natural histories, sharing the same purpose—to describe the animal world—but adumbrating a different point of view. In Latin versions they were widely disseminated across Europe in the Middle Ages.⁵

The fruits of this tradition has been distilled for English readers early in the seventeenth century. Edward Topsell's massive, densely printed *The Historie of Foure-Footed Beastes* (based on Konrad von Gesner's five-volume *Historia Animalium*, which had been published half a century earlier) described each animal emblematically, detailing its "vertues (both naturall and medicinall)" and its "love and hate to Mankind."⁶ The information, which was miscellaneously gathered from ancient authorities, modern travelers' tales, and unattributed hearsay, could better be characterized as lore than scientific data. Nevertheless, Topsell's collection exerted a strong influence on at least the form of natural history books well into the eighteenth century.

Like its manuscript predecessors, Topsell's *Historie* was intended for adults, but its bizarre stories and illustrations must also have been attractive to children. Perhaps on this account the authors of the first natural history books for children mined it especially heavily. In so doing, however, they transformed the traditional genre of the bestiary in ways that reflected the concerns of their own age.

Thomas Boreman's *A Description of Three Hundred Animals* has been recognized as the first animal book aimed at children, because

the preface announced that it was intended to “introduce Children into a Habit of Reading.”⁷ Without this clue, it might have been difficult to tell. In many cases, the material presented in animal books written for children in the late eighteenth and early nineteenth centuries did not distinguish them from works designed for an adult audience. Small size often indicated a book intended for small readers. For example, *The Natural History of Four-footed Beasts*, published by Newbery in 1769, measured approximately $2\frac{3}{4}$ " by $4\frac{1}{8}$ " and had a tiny illustration (rather crude and unrealistic, with the animals sporting eerily human expressions) for each entry. T. Tel-truth was the pseudonymous author, and the book was clearly meant for children. Yet the text showed no sign of special adaptation. The print was small, and the multipage entries included such oddly selected tidbits as that the flesh of the tiger “is white, tender, and well tasted” and that jackals “howl in a most disagreeable manner, not unlike the cries of many children of different ages mixed together.”⁸

Some authors did adapt their material to a juvenile audience. For example, *A Pretty Book of Pictures for Little Masters and Misses, or Tommy Trip's History of Beasts and Birds*, which was first published around 1748 and reprinted through the eighteenth century, offered one-page descriptions of the animals, each introduced by a doggerel quatrain. The anonymous author culled the standard authorities carefully for information that children would find interesting, appealing, and comprehensible. Thus the baboon was evoked in vivid physical detail—rough skin, black hair, large teeth, and bright eyes—and its proclivities for fishing and mimicry illustrated within a brief paragraph.⁹ Most authors, however, were more concerned with the baboon's moral than its physical character. Following Boreman, they spent several pages castigating baboons as ugly, surly, and disgusting, describing how troops of baboons attacked people. Throughout the eighteenth century, purchasers of children's books could choose between relatively materialistic and relatively moralistic approaches to the animal kingdom. *A Pretty Book of Pictures* and *The Natural History of Four-footed Beasts* coexisted for decades on the list of Newbery, the leading publisher of children's books.

Even as they catered to a distinctively eighteenth-century thirst for knowledge, these first children's natural history books recalled



Thomas Boreman did not encourage children to distinguish between real animals and imaginary creatures. They were described and illustrated with equal detail and seriousness, side by side.

their medieval roots. Although he claimed that his information was “extracted from the best authors,” Boreman crammed *A Description of Three Hundred Animals* with legendary material. Along with the lion, bear, ox, and beaver appeared a host of mythical beasts. The entry on the unicorn acknowledged that it was “doubted of by many Writers,” but no skepticism was expressed about the Lamia, with “Face and Breasts like a very beautiful Woman . . . hinder Parts like a Goat’s, its forelegs like a Bear’s; its Body . . . scaled all over,” or the similarly patchwork “Manticora,” “Bear-Ape,” and “Fox-Ape.”¹⁰ Of the “Weesil,” an animal native to Britain and familiar to most country people, Boreman reported that they were “said to ingender at the Ear, and bring forth their Young at the Mouth.”¹¹

Although Boreman’s successors tended to borrow their informa-

tion from more reliable sources, they nevertheless perpetuated the bestiary format. Animals were catalogued one by one, and each entry was introduced by an illustration, which was at least as important as the text in attracting an audience. In most cases, as in the bestiaries, the entries were randomly ordered, after an initial appearance by the king of beasts. Thomas Bewick's *A General History of Quadrupeds* (1790) was unusual in using, as had Goldsmith, a rough semblance of Linnaean categories—such as the horse kind, the hog kind, and the “sanguinary and unrelenting” cat kind.¹² More typical was *The British Museum; or Elegant Repository of Natural History*, by William Holloway and John Branch, which put wolves next to elephants and peccaries next to opossums.¹³ The “guide to the zoo” was a nineteenth-century variation on this theme that presented the animals according to either layout of the zoo in question or the attractiveness of the different exhibits to visitors.¹⁴

Within this traditional format, however, the kind of information presented had changed significantly. Even Boreman's rather fantastic work appealed to the newly scientific temper of his age. The bestiaries had described animals as figures in human myths or allegories of human concerns. Boreman assumed that his readers were interested in quadrupeds for their own sake, just because they existed as a part of external nature. He asked not “What do they mean?” but “What are they like?” His entries, like those of most of his successors, focused on the animal's mode of life, physical appearance and abilities, temperament, moral character, and possible utility to man.

Because natural history was perceived to be intrinsically interesting to children, books about it were ideal didactic instruments. The educational theories of John Locke, at once more pragmatic and more humane than their predecessors, had redefined the function of early education. Books were to entice children to learn rather than to force them.¹⁵ Thus Boreman suggested his subject matter was preferable to that ordinarily proffered by introductory readers, which was “such as tended rather to cloy than Entertain.”¹⁶ Or, as the advertisement for *The Natural History of Beasts* (1793), attributed to Stephen Jones, proclaimed, “The study of Natural History is equally useful and agreeable: entertaining while it instructs, it blends the most pleasing ideas with the most valuable discover-

ies.”¹⁷ This was especially important for middle-class children, who were the main audience for juvenile books, and whose parents, it is safe to assume, were eager for them to succeed in an aggressive commercial society.¹⁸ By seducing children into frequent and careful reading, history books helped instill future habits of energetic and studious application.

If the study of nature in general was instructive, the study of the animal creation was more rewarding still. Quadrupeds or beasts, in particular, frequently received special attention. (Both terms were used in the eighteenth and nineteenth centuries as synonyms for “mammals,” which was considered alarmingly pedantic by adults as well as children.)¹⁹ Their greater similarity to man rendered them both more interesting than and intrinsically superior to other animals (Jones, ix). In addition, they were easier to observe and to interact with; unlike birds, fish, and reptiles, they occupied more or less the same space as man and, as one pragmatic author pointed out, “cannot easily avoid us.”²⁰

A scientific understanding of the animal kingdom was thought to enhance not only studious habits, but also a child’s religious feeling; according to Holloway and Branch, “no other [human pursuit] excites such proper sentiments of the being and attributes of God” (1:iii). Two decades later, the anonymous author of *The Natural History of Domestic Animals* was more explicit about the way in which these effects were produced: “Whilst we observe, therefore, so many instances of the Almighty’s wisdom and goodness, in these which are his creatures, let us humbly and gratefully acknowledge him as the source of all our happiness.”²¹ This connection persisted even after Darwin had put the scientific order of creation at odds with the religious one. As late as 1882, Arabella Buckley claimed that the purpose of her strongly evolutionary introduction to vertebrate biology, *The Winners in Life’s Race*, was to “awaken in young minds a sense of the wonderful interweaving of life upon the earth, and a desire to trace out the ever-continuous action of the great Creator in the development of living beings.”²²

Understanding the order of creation would also encourage children to treat animals with kindness. Late eighteenth-century moralists were almost obsessively concerned with children’s propensity to torture insects, birds, and small domestic animals, as much because it

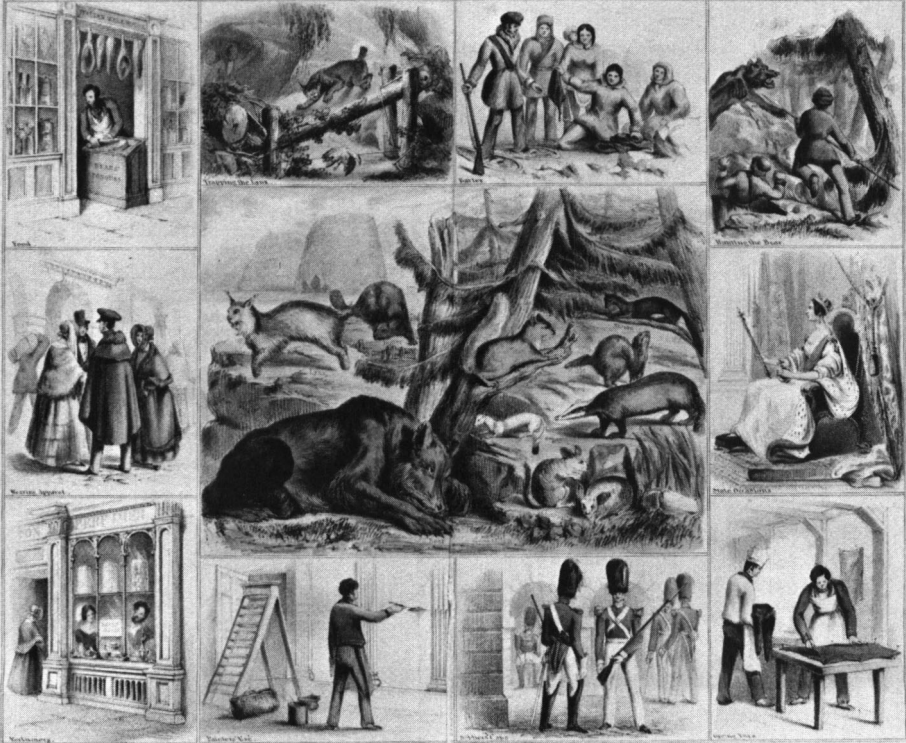


was a prognostication of adult behavior to fellow humans as on account of the animal suffering it caused. The main crusaders against this kind of cruelty were sentimental fabulists like Sarah Kirby Trimmer and Samuel Pratt.²³ Natural history writers shared the concern of the fabulist, but they addressed their readers' heads as well as their hearts. Thus in *The Rational Dame*, Eleanor Frere Fenn used the results of scientific observation to demonstrate that although inferior in rank to man, animals shared his ability to feel—that “man is the *lord*, but ought not to be the *tyrant* of the world.”²⁴

Thus the study of natural history was morally improving. But it did not separate children from more practical considerations. If benevolence and piety were intrinsically laudable, they were also associated with more tangible rewards. God's order itself was understood to be good because it benefited man. Fenn found in the animal world “the most evident appearances of the Divine Wisdom, Power, and Goodness,” one example of which was “how wisely and mercifully it is ordained, that those creatures that afford us wholesome nourishment, are disposed to live with us, that we may live on them” (19, 22). The author of *The Animal Museum* appealed first to the highest moral authority in urging children to treat animals “as the property of our common Creator and Benefactor, with all the kindness their nature is capable of receiving.” Then he suggested an additional motive: “This conduct is not only our duty, but our incentive; for all the animals domesticated by man or that come within the sphere of his operations are sensible of kindness, and but few are incapable of some return.”²⁵

In addition to direct moral lessons, children's books about animals were crammed with information that might also have desirable moral consequences. Thomas Varty's *Graphic Illustrations of Animals* consisted of a series of enormous colored cartoons, each devoted to a single animal or group of animals. That which displayed “The Bear and Fur Animals,” for example, featured a central illustration of bears, beaver, lynx, and mink in a northern pine forest, flanked by smaller pictures of the animals transformed into such useful objects as winter coats, soldiers' hats, royal regalia, perfume, paintbrushes, and food (bears' tongues and hams were considered delicacies). Understanding how useful animals were—that they constituted “the

GRAPHIC ILLUSTRATIONS OF ANIMALS ,
 SHEWING THEIR UTILITY TO MAN IN THEIR SERVICES DURING LIFE, AND USES AFTER DEATH .



Published by THOMAS VARTY, 31 Strand London.

FOR ANIMALS .

“The Bear and Fur Animals” in Thomas Varty’s *Graphic Illustrations of Animals*.

life of trade and commerce, and the source of national wealth . . . the cement of human society”—would impress the mind of a child reader with the improving emotions of “gratitude, admiration, and love.”²⁶

While being uplifted, however, he would also be edified. According to Varty, the “graphic illustrations” would allow the child to form a just estimate of the “intrinsic value of each creature,” independent of sentimental considerations such as beauty or amiability. The practical value of compilations that surveyed only the domestic animals, “which human perseverance has reclaimed from wildness and made subservient to the most useful purposes” (often the same compilations that stressed the importance of humane treatment most heavily), was considered so obvious as to require no further explanation. And even information about more exotic animals might come in handy. Thus the camel could substitute for the horse in a desert, as the goat could replace the sheep in harsh climates.²⁷

Wild animals too might serve practical human purposes. They could be killed for their skins and horns, or for their flesh; they could be tamed as pets or as performers. A shrewd eye could recognize which wild animals were likely candidates for domestication. The zebra, for example, recommended itself as a carriage animal by its beauty and its similarity to the horse; in the view of one naturalist, “it seems formed to gratify the pride of man, and render him service.” That it had not yet been tamed by the human inhabitants of its native savanna was ascribed to their lack of information and enterprise: they had “no other idea of the value of animals of the horse kind, but as they are good for food” (Holloway and Branch, 2:45–48). Well-instructed adventurers would neglect no such opportunity. Thus, learning about animals could help children be good, and it could help them do well.

The most important lesson taught by animal books was less directly acknowledged by their authors. This was a lesson about the proper structure of human society. Quadrupeds occupied a special position in relation to man, a position symbolized but not completely described by their biological closeness. (This closeness, which was recognized long before Darwin, did not imply any evolutionary connection.) Both religion and experience taught that they had been created for human use; some kinds even seemed to seek, or at least

to accept without protest, human companionship and exploitation. The attraction was reciprocal; as Mary Trimmer put it, quadrupeds were unlike “birds, fishes, serpents, reptiles, and insects” in the greater extent to which “their sagacity and constancy of affection excite our observation and regard.” People and quadrupeds seemed to understand each other. In all, “their circumstances bear some analogy to our own” (4).

By learning about animals children could also learn about mankind. The animal kingdom, with man in his divinely ordained position at its apex, offered a compelling metaphor for the hierarchical human social order, in which the animals represented subordinate human groups. Embodying the lower classes as sheep and cattle validated the authority and responsibility exercised by their social superiors. Embodying the lower classes or alien groups as dangerous wild animals emphasized the need for their masters to exercise strict discipline and to defend against their depredations. These identifications were nowhere explicitly stated, but they constantly informed the language used to describe the various animals. In addition, they were implicit in the system of values that determined the moral judgment pronounced upon each beast.

What was explicitly stated was the inferiority of animals to man. For this reason the metaphorical hierarchy remained incomplete; animals never exemplified the best human types. But the sense of human dignity that barred animals from realizing, even figuratively, the highest human possibilities made them particularly appropriate representatives of the less admired ranks and propensities. If animals carried the message—if it were not completely clear where natural history ended and social history began—it might be easier to teach children unpalatable truths about the society they lived in.

The dividing line was reason, “the privilege of man.” Although the behavior of some animals “often approaches to reason,” according to the author of *Animal Sagacity*, it never crossed the impenetrable boundary; “men weigh consequences . . . animals perform their instinctive habits without foreseeing the result.”²⁸ This distinction justified man’s domination of animals, both pragmatically and in principal. According to Mary Trimmer, “While man is excelled in strength, courage, and almost every physical excellence, by some one or other of the animal creation, he is yet able, aided by intellect,

to subject to his own uses the very powers, which, properly directed, might greatly injure, if not destroy him." And in this case, at least, might made right. The "subserviency" of quadrupeds "to our comforts and wants" was therefore "manifest" (M. Trimmer, 4, 9).

Even the sentimental fabulists were firm about the line separating man and beasts, a line which placed certain ineluctable limits on the obligation to be kind to them. It was, for example, permissible to exploit them economically in all the usual ways.²⁹ In no case, according to these earnest didacticists, should concern for animals eclipse concern for other human beings. Although during most of Sarah Kirby Trimmer's *Fabulous Histories*, the virtuous Mrs. Benson concentrated on teaching her children to be kind to rather humanized animals, she also included a salutary lesson on the dangers of excessive fondness. The foolish Mrs. Addis neglected her children while doting on her birds, squirrel, monkey, dog, and cat. Eventually the animals died, and her children turned out badly, leaving her to an old age of loneliness and regret.

The need to distinguish appeared most clearly when the resemblance was most striking. Descriptions of apes and monkeys often vacillated between admiring recital of their resemblances to man and firm denials of their closeness. Orangutans were said to walk erect, to build huts, to attack elephants with clubs, and to cover the bodies of their dead with leaves and branches. One status-conscious ape, bound for England by ship, expressed his sense of kinship with mankind by embracing the human passengers whenever possible and snubbing some monkeys who were also aboard. But, as the author of *The Animal Museum* noted, these similarities were "productive of . . . few advantages": orangutans could not talk or think (204–07).³⁰

Monkeys illustrated the dissociation of physical and intellectual qualities still more satisfactorily. Despite occasional reports of their extraordinary sagacity—one Father Carli, a missionary, found the monkeys more tractable than the human residents of Angola—they were usually characterized as "mischievous" at best, "filthy" and "obscene" at worst.³¹ Yet as T. Teltruth detailed in *The Natural History of Four-footed Beasts*, they resembled humans closely in the face, nostrils, ears, teeth, eyelashes, nipples, arms, hands, fingers, and fingernails. This similarity, however, turned out to be com-

pletely superficial. Teltruth reassured his readers that monkeys “if compared to some quadrupeds of the lower orders, will be found less cunning, and endowed with a smaller share of useful instinct” (72–73).

In the case of quadrupeds, zoology was destiny. Their inferior mental capacities dictated their subordination to man. As with people, subordination was routinely expressed in terms of servitude; natural history writers urged children to wonder what use the various beasts could be to them. Although some wild animals could be harvested, the most useful species were those that “man has subjected to his will and service” (*Animal Museum*, 1). So domestic animals, described in terms that suggested human domestics, provided the model by which other animals were judged: “They seem to have few other desires but such as man is willing to allow them. Humble, patient, resigned, and attentive, they fill up the duties of their station, ready for labour, and satisfied with subsistence” (Jones, ix). By a somewhat circular calculation, animal intelligence or sagacity was equated with virtue. Like the best human servants, the best animals understood their obligations and undertook them willingly; the worst were those that not only declined to serve but dared to challenge human supremacy.

For this reason, the most appreciated domestic animals were not the sheep, “the most useful of the smaller quadrupeds,” or even the ox (the term used generically for cattle), whose “services to mankind are greater than those of sheep, for . . . they are employed . . . as beasts of draught and burden.”³² Occasionally these beasts might show some understanding of their special bond with mankind—for example, a ewe that led a girl to a stream where her lamb was drowning or a bull that showed gratitude to a man who saved him from lightning (*Animal Sagacity*, 28–30, 130–32). And it was pleasant (especially in contrast to “the savage monsters of the desert”) “to contemplate an animal designed by providence for the peculiar benefit and advantage of mankind” (Holloway and Branch, 2:181). Nevertheless, cows, on the whole, were merely “gentle,” “harmless,” and “easily governed by Men,” and sheep, though “affectionate,” were “stupid”;³³ both kinds were the equivalent of mindless drudges.

The services of animals able to understand their subordinate

position and accept its implications were valued more highly. The horse was repeatedly acclaimed as “noble.” In part this accolade reflected its physical magnificence, “more perfect and beautiful in its figure than any other animal” and “adapted by its form and size for strength and swiftness.”³⁴ Even more worthy of admiration, however, was the fact that, although “in his carriage, he seems desirous of raising himself above the humble station assigned him in the creation,” the horse willingly accepted human authority (Holloway and Branch, 1:145). “With kind treatment,” according to one appreciative writer, it would “work till it is ready to die with fatigue.”³⁵ Horses were affectionate creatures—there were many stories of their attachment to stablemates and farmyard animals of different species, as well as to people—and their understanding was, at least in the opinion of some admirers, “superior to that of any other animal.”³⁶ This perspicuity produced “a fear of the human race, together with a certain consciousness of the services we can render them” (Jones, 7).

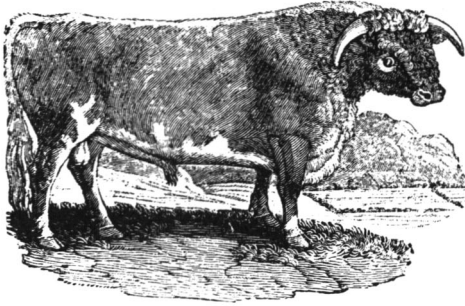
Even more eager and aware in accepting the bonds of servitude was the dog, the favorite species of almost all the writers who described the animal kingdom for children. Like the horse, its only competitor for the highest appreciation, the dog was said to combine extreme sagacity (the term regularly employed by those reluctant to assign “intelligence” to animals) with affection and obedience. According to *The Natural History of Beasts*, the dog was characterized by “affectionate humility . . . His only aim is to be serviceable; his only terror to displease” (Jones, 79). Stories of dogs who had preserved their masters’ lives and property were so routine that it was worthwhile recounting only those in which the animal had displayed unusual devotion or shrewdness, such as when a ship’s dog saved the whole crew by warning them that the hold was filling with water or an alert watchdog caught a human fellow servant stealing corn (*Animal Sagacity*, 55–56, 97–98). Such demonstrations made the dog “the most intelligent of all known quadrupeds”; in addition it was “the most capable of education.”³⁷ It was “the only animal who always knows his master, and the friends of the family” (Fenn, 41). The dog’s mental powers were such that “in the rude and uncultivated parts of the earth, he might, in point of intellect . . . be placed almost upon a footing with his master,” yet it never showed dissatis-

faction with its subordinate rank. It wanted nothing more than to be “the friend and humble companion of man” (Holloway and Branch, 1:31).

Some domestic animals had trouble meeting even the minimal standards of obedience set by sheep and cattle, let alone the high standards of cooperation set by the dog and the horse. Like disrespectful underlings, they did not adequately acknowledge the dominion of their superiors. The pig, for example, despite its incontestable value as a food animal—“ample recompense . . . for the care and expense bestowed on him”—was routinely castigated as stupid, filthy, and sordid, seeming “to delight in what is most offensive to other animals.”³⁸ Pigs were defective in morality as well as in taste. Sows were accused of devouring their own young, which in turn scarcely recognized their mother (Fenn, 36). Naturally, they did not recognize their human caretakers. Even physically, they had been less responsive to the guiding hand of man; according to one writer, “The hog seems to be more imperfectly formed than the other animals we have rendered domestic around us” (Jones, 50).

Although the cat could not have been more different from the pig in its beauty and cleanliness, it had similarly resisted human efforts to mold it physically. Nor did it seem disposed to accept other forms of domination. It served man by hunting and thus did not depend on people for sustenance. It was suspected of having “only the appearance of attachment to its master,” really either “dreading” him or “distrusting his kindness”; people feared that “their affection is more to the house, than to the persons who inhabit it.”³⁹ It was considered faithless, deceitful, destructive, and cruel; it had “much less sense” than the dog, with which it was inevitably compared; and, in all, it was only “half tamed.”⁴⁰ Its diminutive resemblance to the lioness and the tiger provoked many uneasy remarks.

If domestic animals symbolized appropriate and inappropriate relations between human masters and servants, the lessons to be drawn from wild animals were more limited. This may explain the surprising extent to which zoological popularizers neglected exotic wild animals in favor of familiar domestic beasts. For example, in Bewick’s *General History of Quadrupeds*, which appealed to both children and adults, the briefest entries were less than a page long and the standard entry for a significant wild animal (one that was reason-



THE LONG-HORNED OR LANCASHIRE BREED



THE ORAN-OUTANG, OR WILD-MAN OF THE WOODS,

Thomas Bewick's *General History of Quadrupeds* was distinguished from many other popular natural history books by its detailed and lifelike illustrations. As in the text, Bewick lavished a disproportionate amount of attention on familiar domestic animals.

ably well-known and about which some information was available) was from five to nine pages. Yet thirteen pages were devoted to the horse, fourteen to the ox, seventeen to the sheep, eleven to the goat, eleven to the hog, and thirty-nine to the dog. The only wild animals to receive comparable attention were the elephant and the squirrel, which could be measured by the standards set by domestic animals. The elephant had been semidomesticated in India. Although it did not breed in captivity, it was easily tamed, in which condition it was docile, mild, and an "important auxilliary to man" (*Animal Museum*, 162). As a result, it was also characterized as noble, friendly, courteous, and sagacious.⁴¹ Like elephants, squirrels were easily tamed. Unlike elephants, they were frequently kept as pets by English children, who might learn from them to be "neat, lively . . . and provident" (Fenn, 53). In any case, their willingness to abandon their "wild nature" for domesticity had made them "fine" animals, "universally admired."⁴²

The descriptions of many other wild animals were neutral in tone. Writers were unable to muster much enthusiasm about the fact that

exotic animals like the raccoon and the capybara (an enormous rodent) were tameable or that the endless variety of deer and antelope encountered in every newly explored territory could all be eaten.⁴³ Some speculations showed a limited sympathy for strange creatures; for example, the author of *The Natural History of Animals* remarked of the sloth that “though one of the most unsightly of animals, it is, perhaps, far from being miserable.”⁴⁴ For the most part, however, animals were not even important enough to merit a moral judgment unless they somehow influenced human experience. Thus the rhinoceros, the giraffe, the hippopotamus, the badger, and the camel were often dismissed as simply inoffensive.⁴⁵

Beasts of prey were seldom dismissed in this way. Their carnivorous way of life disposed them to challenge man rather than to serve or flee him; they were rebels who refused to accept his divinely ordained dominance. Natural history books for children therefore tended to present them as both dangerous and depraved, like socially excluded or alien human groups who would not acknowledge the authority of their superiors. (Sometimes this analogy was made explicit, as when the author of *The Natural History of Beasts* noted that “in all countries where men are most barbarous, the animals are most cruel and fierce,” meaning Africa) (Jones, xi). Even small creatures that could not directly defy human power were castigated for their predatory propensities. The weasel, for example, was “cruel, cowardly, and voracious” (Jones, 117). If such animals could not be controlled, they might have to be exterminated. “However much we detest all cruelty to the brute creation,” intoned the author of *The Animal Museum*, the fox “is so destructive to the property of the farmer . . . that his destruction is absolutely necessary” (93).

Large, powerful animals were, naturally enough, even more threatening, and, with one exception, they were described as unmitigatedly wicked. The exception was the lion, whose prestige as the king of beasts (lingering from the medieval bestiaries) was enhanced by its contemporary function as the emblem of British power. Although it was acknowledged to be dangerous and powerful, it was praised for its generosity and magnanimity in using its strength.⁴⁶ It attacked bravely, from the front, and never killed unless it was hungry. Most important, the lion respected man. It had learned to fear human power, and according to the African explorer Mungo

Park, whose travels were available in a special children's edition, it would "not offer violence to a human being, unless in a state of absolute starvation."⁴⁷ (At least not to Europeans—another naturalist, perhaps more learned but with less hands-on experience, opined that "the Lion prefers the flesh of a Hottentot to any other food.")⁴⁸

The tiger was the reverse of the lion in every way, the epitome of what man had to fear from the animal kingdom. If the lion was the judicious king of beasts, the tiger was the evil, usurping despot. Its beauty cloaked "a ferocious and truly malignant disposition" (M. Trimmer, 17). Indeed, the tiger's appearance so misrepresented its character that Holloway and Branch warned their young audience that "providence bestows beauty upon so despicable an animal to prove, that when it is not attached to merit, it neither deserves to be estimated or prized" (29). It was cruel and greedy, interrupting a meal of one carcass to kill another animal or slaughtering an entire flock and leaving them dead in the field (*Animal Museum*, 173). Like the wolf and some other big cats, it was often called "cowardly," which apparently meant unwilling to face men with guns.⁴⁹ Nevertheless, it did not fear man and refused to respect him. The authors of *The British Museum* used the language of redemption to lament that "no discipline can correct the savage nature of the tiger, not any degree of kind treatment reclaim him" (Holloway and Branch, 1:22).

The ultimate index of the tiger's unregeneracy was its fondness for human flesh. Not only was it "ready to attack the human species," but it seemed actually "to prefer preying on the human race rather than on any other animals."⁵⁰ Tigers were deemed not to be alone in this predilection. They shared it with several other contemptible animals: wolves, who were characterized as "noxious," "savage," and "cruel" (also as afflicted with bad breath),⁵¹ and the "ferocious," "insatiable," and "uncouth" polar bear.⁵² Not so dangerous, but equally presumptuous, jackals and hyenas scavenged for human corpses.⁵³ But in a way the message was the same. Dead or alive, human flesh was forbidden fruit. These creatures were supposed to serve man's purposes, not appropriate him to theirs. To reverse this relationship was to rebel against the divine order, to commit sacrilege.

The writers of natural history books for children in the late eighteenth and early nineteenth centuries liked to dwell on man-eating. It loomed far larger in texts than its frequency as a behavior among those species really capable of it or its likelihood as a fate for members of their audience would have justified. But if reading about the animal kingdom was also a way for children to learn how their own society was organized, then man-eating offered a serious lesson as well as an armchair thrill. It provided a graphic and extreme illustration of the consequences that might follow any weakening of the social hierarchy, any diminution of respect and obedience on one side and of firmness and authority on the other.

This kind of juvenile natural history, in which the animals, presented one by one, provided an implicit commentary on human social norms, was frequently reformulated and republished until the middle of the nineteenth century. And it did not vanish completely even then. Occasionally, subsequent scientific description of animals served a double function by instructing children about the rules governing the human world. Between the lines of Arabella B. Buckley's *The Winners in Life's Race*, for example, lurked the sternest social Darwinism, although she attempted to mitigate it by declaring that "the struggle is not entirely one of cruelty or ferocity, but . . . the higher the animal life becomes, the more important is family love and the sense of affection for others" (351–52).

On the whole, however, moralizing dropped out of juvenile natural history literature in the middle of the nineteenth century. As science became more sophisticated, the very term *natural history*, which had an aura of amateurism and speculation, gave way to soberer, more precise rubrics. Buckley's book itself exemplified this trend. The introduction and conclusion provided a didactic context for a text that was otherwise stuffed with Latinate taxonomical terms, paleontological evidence, and an unremitting concern with adaptation to function. As the title of one of Buckley's other works, *The Fairyland of Science*, suggests, she wished to introduce children to accurate zoological ideas. The moral dimension was a kind of sugar coating, not an integral part of her demonstration.

As well as changing the tone of juvenile nonfiction about animals, the Victorian advance of science undermined the metaphor equating subordinate human groups with animals in a more profound

way. If Darwinian evolution were acknowledged, man had to be included among the animals; the once-impassible gulf of reason ceased to matter. Although Buckley did not go so far as to treat man in her survey of vertebrates (organized by functional and developmental groups, rather than creature by creature), she did include him in her “Birds-eye View of the Rise and Progress of Backboned Life” as “the last and greatest winner in life’s race.” He was not intrinsically separate from “large wild animals” but was their competitor for “possession of the earth” (343–45).

In earlier natural history literature for children, the metaphorical equation of inferior humans and inferior animals derived much of its appeal from the implicit assumption that the human social world was somehow nicer as well as more civilized than that of even domestic animals. Understood in the context of an unbridgeable gap between human beings and even the most advanced and sympathetic quadrupeds, the similarities between animals and people made it possible to teach children lessons about hierarchy and power that might have been unpleasant, even frightening, if expressed directly. As zoology brought animals and people closer together, real animals became inappropriate carriers of moral lessons. Only animals that had been humanized and sentimentalized could be admitted into Victorian nurseries as teachers. Learning about themselves from animals became the exclusive prerogative of readers of the other, fictional branch of animal literature for children, where it continued to flourish, producing such sentimental favorites as *Black Beauty*, *Toad of Toad Hall*, and *the Cowardly Lion*.

Notes

1. F. J. Harvey Darton, *Children's Books in England: Five Centuries of Social Life*, 3rd ed. rev. by Brian Alderson (1932; rpt. Cambridge: Cambridge Univ. Press, 1982), 1; J. H. Plumb, “The First Flourishing of Children’s Books” in *Early Children’s Books and Their Illustration* (New York: Pierpont Morgan Library, and Boston: David R. Godine, 1975), xviii–xix, xxiv; for a general discussion of edifying children’s literature in the eighteenth century, see Samuel F. Pickering, *John Locke and Children’s Books in Eighteenth-Century England* (Knoxville: Univ. of Tennessee Press, 1981).

2. R. B. Freeman, “Children’s Natural History Books before Queen Victoria,” *History of Education Society Bulletin* 17 (Spring 1976): 8, 11. The second installment of Freeman’s article, subtitled “A Handlist of Texts,” appeared in *History of Education Society Bulletin* 18 (Autumn 1976): 6–34. See also Eric Quayle, *The Collector’s Book of Children’s Books* (New York: Clarkson N. Potter, 1971), 28.

3. See David Elliston Allen, *The Naturalist in Britain: A Social History* (1976; rpt. Harmondsworth, Middlesex: Penguin Books, 1978), chapters 2 and 3, for a discussion of how natural history became a fashionable pastime. Keith Thomas's *Man and the Natural World: A History of the Modern Sensibility* (New York: Pantheon, 1983) includes a survey of attitudes to nature in early modern Britain. For a survey of the history of Western attitudes to animals, see John Passmore, "The Treatment of Animals," *Journal of the History of Ideas* 36 (1975): 195–218.

4. Darton, 10–12; Plumb, 4; *The Fables of Aesop, and others, with Designs on Wood* (1818; rpt. Newcastle: T. Bewick and Co., 1823), iii. Eugene Francis Provenzo offers a history of the fable, with special attention to its didactic function, in "Education and the Aesopic Tradition," Ph.D. diss., Washington University, 1976, chapter 2.

5. Montague Rhodes James, *The Bestiary, being a Reproduction in Full of the Manuscript 11.4.26 in the University Library, Cambridge . . . and a Preliminary Study of the Latin Bestiary as Current in England* (Oxford: Roxburghe Club, 1928), 2–3, 7, 22; T. J. Elliott, trans., *A Medieval Bestiary* (Boston: David R. Godine, 1971), n.p.

6. *The Historie of Foure-Footed Beastes* (London: William Iaggard, 1607), title page.

7. *A Description of Three Hundred Animals, viz. Beasts, Birds, Fishes, Serpents, and Insects*, 3rd ed. (1730; rpt. London: R. Ware, 1736), "Preface," n.p.

8. T. Telruth, *The Natural History of Four-footed Beasts*, 3rd ed. (1769; rpt. London: E. Newbery, 1781), 11, 62. Further references to Telruth will be given in the text. Modern bibliographers are usually generous in their classification, including as juvenile literature any work that might conceivably have attracted children. See Freeman, "Children's Natural History Books," 9–10, and his practice in "A Handlist of Texts."

9. *A Pretty Book of Pictures for Little Masters and Misses, or Tommy Trip's History of Beasts and Birds*, 15th ed. (1748; rpt. London: Edwin Pearson, 1867), 21.

10. Boreman, 6, 22, 19, 27. Boreman was not alone in either his credibility or his skepticism. Topsell had doubted the existence of the unicorn over a century earlier (711–21); on the other hand, the author of *The Natural History of Four-footed Beasts* included it in his compendium.

11. Boreman, 67.

12. *A General History of Quadrupeds* (1790; rpt. Newcastle upon Tyne: Beilby and Bewick, 1822), 178.

13. William Holloway and John Branch, *The British Museum; or Elegant Repository of Natural History*, 2 vols. (London: John Badcock, 1803). Further references to Holloway and Branch will be given in the text.

14. Examples of this genre include Edward Turner Bennett, *The Tower Menagerie: Comprising the natural history of the animals in that establishment; with anecdotes of their characters and history* (London: Robert F. Jennings, 1829) and Frederica Graham, *Visits to the Zoological Gardens* (London: George Routledge and Sons, 1853).

15. Pickering, 70–71; Plumb, xvii–xviii.

16. Boreman, "Preface," n.p.

17. [Stephen Jones], *The Natural History of Beasts, Compiled from the Best Authorities* (London: E. Newbery, 1793), iii. Further references to Jones will be given in the text.

18. Darton, 5; Plumb, xviii; Isaac Kramnick, "Children's Literature and Bourgeois Ideology: Observations on Culture and Industrial Capitalism in the Later Eighteenth Century" in *Culture and Politics from Puritanism to the Enlightenment*, ed. Perez Zagorin (Berkeley and Los Angeles: Univ. of California Press, 1980), 211–12. Sylvia Patterson dissents from the scholarly consensus that identifies the middle classes as the primary producers and consumers of children's literature in the eighteenth

century, claiming that upper-class children were the primary targets in "Eighteenth-Century Children's Literature in England: A Mirror of Its Culture," *Journal of Popular Culture* 13 (1979): 38–39.

19. James Rennie, *Alphabet of Zoology, for the Use of Beginners* (London: Orr, 1833), 5–6.

20. Mary Trimmer, *A Natural History of the Most Remarkable Quadrupeds, Birds, Fishes, Serpents, Reptiles, and Insects* (1825; rpt., abridged, Boston: S. G. Goodrich, 1829), 4. Further references to M. Trimmer will be given in the text.

21. *The Natural History of Domestic Animals: Containing an Account of their Habits and Instincts and of the Services They Render to Man* (Dublin: J. Jones, 1821), vi.

22. Buckley, *The Winners in Life's Race, or the Great Backboned Family* (1882; rpt. New York: D. Appleton, 1883), viii. Further references to Buckley will be given in the text.

23. See, for example, Samuel Jackson Pratt, *Pity's Gift: A Collection of Interesting Tales to Excite the Compassion of Youth for the Animal Creation* (1798; rpt. Philadelphia: J. Johnson, 1808) and Sarah Kirby Trimmer, *Fabulous Histories: Designed for the Instruction of Children, Respecting Their Treatment of Animals* (1786; rpt. London: Whittingham and Arliss, 1815).

24. [Eleanor Frere Fenn], *The Rational Dame: Or, Hints Towards Supplying Prattle for Children*, 4th ed. (1790?; rpt. London: John Marshall, c. 1800), vi. Further references to Fenn will be given in the text.

25. *The Animal Museum; or, Picture Gallery of Quadrupeds* (London: J. Harris, 1825), iii–iv. Further references to *Animal Museum* will be given in the text.

26. Thomas Varty, *Graphic Illustrations of Animals, Showing Their Utility to Man, in their Services During Life, and Uses After Death* (London: Thomas Varty, n.d.), n.p.

27. *Natural History of Domestic Animals*, v, 92; *A Pretty Book of Pictures*, 30.

28. *Animal Sagacity, exemplified by facts showing the force of instinct in beasts, birds, & c.* (Dublin: W. Espy, 1824), 3, 5, 8. Further references to *Animal Sagacity* will be given in the text.

29. Pickering, 25–33; Darton, 3.

30. See also Jones, 65, and *The Natural History of Animals: Beasts, Birds, Fishes, and Insects* (1818; rpt. Dublin: Smith and Son, 1822), 46–47.

31. Jones, 73; *Tom Trip's Museum: or, a Peep at the Quadruped Race* (London: John Harris, n.d.), pt. 2, 11; Boreman, 26; William Bingley, *Animal Biography: or, Authentic Anecdotes of the Lives, Manners, and Economy of the Animal Creation, arranged according to the system of Linnaeus* 3 vols. (1802; rpt. London: Richard Phillips, 1804), 1:36.

32. *Natural History of Domestic Animals*, 84, 106.

33. *Tom Trip's Museum*, pt. 1, 6; Boreman, 11; Thomas Bingley, *Stories Illustrative of the Instincts of Animals, Their Characters and Habits* (London: Charles Tilt, 1840), 65.

34. *Tom Trip's Museum*, pt. 1, 3; *Animal Museum*, 1.

35. *Tom Trip's Museum*, pt. 1, 3.

36. T. Bingley, 15; *Animal Museum*, 1.

37. *Natural History of Domestic Animals*, 9; *Rational Dame*, 41.

38. *Natural History of Domestic Animals*, 78–82.

39. M. Trimmer, 25–26; Fenn, 38.

40. Jones, 93; *Natural History of Domestic Animals*, 64–67; Fenn, 23.

41. Jones, 62; *Natural History of Animals*, 13; Holloway and Branch, 44; M. Trimmer, 39.

42. M. Trimmer, 81; Holloway and Branch, 2:136.

43. *Tom Trip's Museum*, pt. 3, 13; Jones, 55.

44. *Natural History of Animals*, 53.

45. M. Trimmer, 41; Jones, 34, 59, 115; *A Pretty Book of Pictures*, 30–31.
46. *Tom Trip's Museum*, pt 2, 2; *Animal Museum*, 168–71.
47. *Travels in the Interior of Africa* (Dublin: P. Hayes, 1825), 113.
48. W. Bingley, 1:268.
49. Jones, 106; *Tom Trip's Museum*, pt. 2, 8; Holloway and Branch, 2:25.
50. *Natural History of Animals*, 11; Jones, 101.
51. *Natural History of Animals*, 35; Fenn, 44; Jones, 86; Holloway and Branch, 1:54.
52. M. Trimmer, 43; Frederic Shoberl, *Natural History of Quadrupeds*, 2 vols. (London: John Harris, 1834), 2:169; Holloway and Branch, 1:222.
53. Holloway and Branch, 2:245; Shoberl, 2:72–73.