

# INTRODUCTION TO THE REVISED EDITION

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JANE GOODALL'S WORK has already passed into the legends of our culture, but a false stereotype about the nature of science has often prevented its proper recognition as one of the great achievements of twentieth-century scholarship.

We think of science as manipulation, experiment, and quantification done by men dressed in white coats, twirling buttons and watching dials in laboratories. When we read about a woman who gives funny names to chimpanzees and then follows them into the bush, meticulously recording their every grunt and groom, we are reluctant to admit such activity into the big leagues. We may admire Goodall's courage, fortitude, and patience but wonder if she represents forefront science or a dying gasp from the old world of romantic exploration. Let me try, in this short introduction, to explain why the conventional stereotype is so wrong, and why Jane Goodall's work with chimpanzees represents one of the Western world's great scientific achievements.

The sciences of history — geology, evolutionary biology, cosmology, archaeology, and many others, including history itself — take as their objects of study the unique, inordinately complex, multifaceted, unrepeatable events that have unfolded during the life of our universe. The laboratory technique of stripping away

uniqueness and finding quantifiable least common denominators cannot capture the richness of real history.

Nature is context and interaction — organisms in their natural environment. The individuality of chimps matters, and ultimately sets the events of their history as a species. Hence, each animal needs a distinctive name. You can't manipulate (especially in the artificial context of a laboratory) without disrupting the social and ecological context that defines a chimpanzee's life. You must observe in nature. You cannot take a few random looks now and then. You must follow hour after hour, at all times and places, lest you miss those odd, distinctive (and often short) events that set a pattern and history for entire societies.

Thus, we learn that an alpha male is not always the biggest or strongest, but may win his rank by peculiar cleverness (Mike, who bluffed his way to the top by banging empty kerosene cans together) or by subtle alliances (Goblin, the present incumbent, who, although smaller than average, knows how to play that oldest game of imperialism — "divide and conquer"). Or we discover that the main outlines — the history of the Gombe chimps during twenty-five years are not set by general principles of chimpanzee, but by particular historical events and individual peculiarities. Three such events have stamped Gombe's history. One is the polio epidemic described in this book. The other two happenings occurred subsequent to its original publication in 1971: the split of the community into two, with subsequent murder of males in the smaller subgroup by those of the larger; and the cannibalism of newborns by one female (oddly named Passion), leading to only one survival during a four-year period.

Meticulous and unobtrusive observation must be our method if we hope to grasp the complexities of true history. Goodall's work does not match the white-coated laboratory stereotype; but it represents great and forefront research in the science of history.

We don't follow all species with such loving care. Not one of a

half million species of beetles has ever won such close attention. We properly focus on chimpanzees for an obvious reason based on a defensible parochialism — our own interest in ourselves. Evolution is a science based on comparison among related organisms. All organisms are tied by genealogy in various degrees of closeness. Since this historical connectedness defines the nature of evolutionary relationship, we pay special (and appropriate) attention to those creatures that share most common ancestry with us.

Many people do not realize how chimpanzees stand out as preciously and uniquely important in this respect. Our best biochemical data suggest a time of six to eight million years (a geological yesterday) for the split from common ancestry of the human and chimp lineages (only gorillas approach this degree of evolutionary closeness with us, but latest evidence now indicates that, contrary to long-held assumptions, chimps are actually closer to humans than to gorillas in terms of genealogical descent). Overall genetic similarity of human and chimp measures substantially more than ninety-five percent, but a world of fascinating difference, including the biological essence of humanity, lies in the few percent that separate our two species.

Science gains enormous power in replication of observations, but *Homo sapiens* is a single species and we can never know, by studying ourselves alone, whether important aspects of our behaviors and mental capacities reflect an ancestral evolutionary heritage (transmogrified through our uniquely evolved intelligence and its social correlates), or new features evolved or socially acquired only by our lineage. Chimpanzees are the best natural experiment we will ever have for exploring this central question, for chimps are our closest genealogical cousins and therefore hold more of our common evolutionary heritage than any other species can. Chimpanzees are not so much the shadow of man as our mirror, only slightly blurred by the mists of time. I need hardly

add that if we wipe out this species, or if we even destroy its natural habitat and relegate all survivors to zoos and manicured wildlife parks, we will permanently lose all possibility of pursuing the best and only natural experiment available for the biological ground of human ancestry.

Nearly twenty years have passed since Jane Goodall wrote the first edition of this book. Much has changed since then, both in her interpretation, and in the life of the Gombe chimps. Her earlier view was more sanguine, depicting chimps primarily as caring and devoted, holders of virtues we prize in ourselves. Subsequent observations have added more somber tones (see my earlier comments on genocide and cannibalism), and Goodall's latest works talk about the analogues of warfare, and a life closer to Hobbes's famous characterization of our own estate — nasty, brutish, and short. But it would be very wrong to conclude, as some irresponsible journalism has, that we now understand the essential and ineluctable darkness of human nature, and that light can provide only a temporary way station in a world of woe. Quite the contrary. Goodall has enlarged her view beyond an originally restricted hope that chimps might have avoided our own frailties. She now sees the full and rich panoply of chimpness — and this can only emphasize the far vaster range of capacities (for both good and evil) that humans possess. Moreover, she has freed herself from the hortatory hope that chimps might indicate a path that we should emulate, or seek to recover. Chimps simply are — and they deserve our inalienable respect for their simple evolutionary existence, as well as our primal sympathy for unsurpassed kinship.