

### How the Human Animal Found Its Self

Adrian Woolfson

**B**orn and trained in Scotland, the fashionable 18th-century physician George Cheyne moved to London to seek his fortune. There he hobnobbed in coffee houses and taverns to build up a trade, finding “nothing being necessary for that purpose but to be able to eat lustily, and swallow down much liquor.” With such indulgences, his weight ballooned to 32 stone (over 200 kg). But in an age where stoutness was the esteemed “mark of the wealthy” and amplitude much appreciated, Cheyne was unusual. In a revelation of self-disgust, he did an about turn and became a widely read prophet against physical excess. His book *The English Malady* (1733) may be seen as a precursor of the food fad-, diet-, and youth-obsessed culture that prevails today. But the true importance of this small and otherwise inconsequential moment lies not in the “tubercular look” that it spawned and which rapidly became fashionable amongst 18th-century romantics, nor in the thigh-hugging military uniforms of the Napoleonic wars or Lord Byron’s slimming obsession. It is instead the fact that it was but one strand of a powerful and disseminated movement that transformed long-established notions of human existence and overturned tradition. Man plagued by

fears of eternal torment, fear, and retribution was replaced by a newly fashioned, confident beast: man the maker of his own fortune, economic, pleased, idiosyncratic, and freethinking.

This movement, often referred to as the Enlightenment or Age of Reason, was not a clearly definable historic entity like the Battle of Agincourt or World War I. It was instead a period of profound intellectual change, encompassing many regions, social classes, and generations, that transformed European civilization from a premodern consciousness (dominated by ancient classical philosophy,

**Flesh in the Age of Reason**  
The Modern Foundations of Body and Soul  
by Roy Porter

Norton, New York, 2004. 592 pp. \$29.95. ISBN 0-393-05075-0. Allen Lane (Penguin), London, 2003. £25. ISBN 0-713-99149-6.

the notion of an immaterial soul, and the Christian eschatology of death, judgment, heaven, and hell) into its modern (secular, freethinking, and intellectually liberated) scientific guise. God became “a distant causer of causes,” and the master narrative gained independence from theology. Although often described as an 18th-century phenomenon, enlightened rational thinking defies such narrow compartmentalization, and its antecedents may be found in the writings of earlier thinkers. The term itself assumes significance from the more focused and vigorous extent of such activities within that century and from the profound social changes that came in its wake. In his final book, *Flesh in the Age of Reason*, the late Roy Porter (a historian at University College, London) subjects this complex phenomenon to a meticulous forensic analysis by examining the heterogeneous and often conflicting thoughts, fears, and beliefs of its proponents and principal protagonists in Britain.



*Still Life with Skull* by Gerard Dou (Dutch, 17th century).

Porter’s ingenious device is to examine and illustrate the emergence of Enlightenment thought by tracing its origins in the minutiae of day-to-day existence and by exploring the ideas of a representative selection

of contributing individuals. He highlights the moments when modern preoccupations (such as those of Cheyne) were born and circulated into a wider cultural context. By virtue of their important contributions to this sea change in our perspective of ourselves, these British eccentrics form a focused beam of European Enlightenment activity, which Porter uses as a case in point to illuminate broader principles.

Through a host of samples from this period’s newspapers, magazines, pamphlets, letters, and books, Porter enables us to glimpse the minds of even humble adherents of the Enlightenment. (For example, we learn that the 1733 funeral of John Underwood of Cambridgeshire consisted of a performance of the 31st Ode of Horace, followed by wine and instructions to forget the departed.) Porter deftly interweaves many such independent strands of Enlightenment consciousness, and in so doing he draws us into the phenomenon itself. We become firsthand witnesses of the texture and undulations of the Enlightenment spirit. Porter brilliantly and meticulously picks out sparkling examples of individual thought and introspection. These demonstrate the dissent, intrinsic tensions, and richness of the debates of the time. The author explores not just the positive aspects of Enlightenment thinking. Secularization, the creation of the cult of the individual, introspection, and the desiccation of canonical religious beliefs replaced the security of infinity and afterlife with a scientifically well-honed but uncertain and fragile legacy. The changes brought a psychological abyss, anxieties, hysteria, nervous abnormalities, depression, self-confession, self-doubt, and terror—all of which continue to vex us to the present time.

Rather than a coherent body of thought, the Enlightenment was an eclectic and variegated kaleidoscope of individual and often dissonant voices. (In many cases, thoughts were tempered by people’s physical frailty and sense of mortality.) Bernard de Mandeville advocated the public provision of prostitutes to protect virtuous women, Robert Boyle established the basis for modern chemistry while simultaneously devoting himself to the systematic study of supernatural phenomena, and Jonathan Swift outlined the Struldbrugian nightmare of immortality. Through their writings and chitchat, such iconoclasts reclaimed philosophy for themselves and played an essential,

transformative role in redefining the notion of what it means to be human and what awaits us when we die. That this book serves as Porter's epitaph makes the prose even more poignant.

As biology shifts from its analytic phase into a new synthetic one in which biochemists are planning the construction of the first artificial organisms, we realize that it is no longer just the human body that will be subjected to anatomical analysis. The Lockean tabula rasa will itself soon be delivered like the corpse of a hanged villain and placed on the genetic dissection table. Once the biochemical anatomy

of consciousness and human nature has been defined, humans will have the option not just of theorizing about the creation of an Earthly Eden but of actually realizing it. We could do worse at the cusp of this new enlightenment than to reflect on Porter's synthesis. As Porter describes the paradox of man portrayed in Laurence Sterne's novel *The Life and Opinions of Tristram Shandy, Gentleman* (1759): "such a tender piece of flesh, harbouring such fantasies of omniscience, self-knowledge ... and physical wholeness." Among many other things, what Porter's observations tell us is that the paradoxical ten-

sions of humanity—our vices, fears, woes, simple appreciation (of a star-filled sky or dandelion), animal instincts, ambitions, jealousies, and inadequacies (all of which make us so irresistibly human)—are the raw materials of our nature. Animal passions, though undermining aspects of humanity and society, are also their cement.

How sad that the Porter of flesh and bones is no longer with us. But how delightful that the immaterial image of his post-Enlightenment mind remains to sparkle before us like a handful of bright jewels scattered across the seashore.

## EVOLUTIONARY BIOLOGY

# A New Synthesis or Just The New Synthesis?

A. Townsend Peterson

The sweeping reviews of speciation and biogeography produced by the architects of the "new synthesis" (or "modern synthesis"), particularly Ernst Mayr, in the mid-20th century provided detailed summaries of ecological, distributional, and historical phenomena related to the evolution of biological diversity. The numerous recent advances in theory and technology, as well as the vastly improved information resources related to this subject, would seem to make possible fresh insights into this field. In particular, there has been much new thought about the process of biological diversification and its geographic dimensions, yet genuinely synthetic reviews of this fertile field have been few.

The appearance of a book boldly titled *The Speciation and Biogeography of Birds* brings hope of just such a review. Birds are the focus of intensive research in phylogeography, alpha systematics, distributional biology, and ecology, and would thus seem to be an ideal group on which to found such a new synthesis. Ian Newton, an ornithologist at the National Environmental Research Council's Institute of Terrestrial Ecology, Cambridgeshire, took on the big challenge of summarizing a truly massive literature into a coherent account. The book is attractive and illustrated amply with maps that—although simple and not particularly information-rich—quite aptly illuminate many of the concepts. It is also rich in examples illustrating the ideas and concepts that Newton treats.

### The Speciation and Biogeography of Birds

by Ian Newton

Academic Press (Elsevier), San Diego, 2003. 680 pp. \$75, £49.95. ISBN 0-12-517375-X.

Nonetheless, the book falls disappointingly short of achieving a new synthesis regarding the diversification of birds. On a number of points, in fact, it feels quite dated. Newton bases much of his discussion of phylogenetic history on DNA-DNA hybridization results (1) that have largely been left behind in the face of newer sequence-based findings (which are only scarcely cited); indeed, he falls into the trap of believing Sibley and Ahlquist's argument that their phenetic analyses were phylogenetic analyses. The author more or less rejects alternative species concepts, which many ornithologists believe have great potential to elucidate patterns of avian diversity by achieving a more consistent species catalog (2). Instead, he postulates that the biological species concept and alternative

species concepts will converge on the same patterns. Newton places enormous confidence in molecular clock-based measurements of divergence times, in spite of accumulating evidence that such approaches to dating are likely to be fraught with inaccuracies and biases (3). He bases much of his discussion on such dated concepts as anagenetic (within lineage) speciation, competition as a major force structuring distributions of species and even faunas, species-to-genus ratios as indicators of colonization and speciation histories, and the adaptationist program. Readers will find that many exciting results from recent research have been dismissed, downplayed, or ignored, including the impressive avifaunal richness of Oceania before the arrival of humans (4), the role of pre-Pleistocene speciation in generating present-day diversity (5), the

utility of climate-envelope approaches to understanding the effects of climate change on species' distributions (6), and alternatives to the Pleistocene forest refuge hypothesis (7–9).

I would also have preferred a different organization of the book. Long chapters on dispersal, barriers to movement, and migration come after the core accounts of endemism and major diversity patterns, when they would seem much more appropriate as introductory material. My other complaints are minor: The book's binding may not stand up to heavy use, and though overall the editing is good, there are a few typographical errors and dated place names or assertions (e.g., Ceylon for Sri Lanka and the comment that *Oceanodroma macrodactyla* "may be extinct").

There remains a great need for a comprehensive, up-to-date account of avian evolution. Recent findings on the origin, diversification, Pleistocene and current diversity, phylogeography, and ecological biogeography of birds could be integrated into a profoundly novel view of the history of the class, which would offer an important perspective on the process of biological diversification in general.

Newton's eminently readable book probably provides the best available overview of the origin, distribution, and extinction of bird species on a global scale. But *The Speciation and Biogeography of Birds* fails to live up to the promise of a new synthesis and instead remains firmly embedded in the ideas of the new synthesis.

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