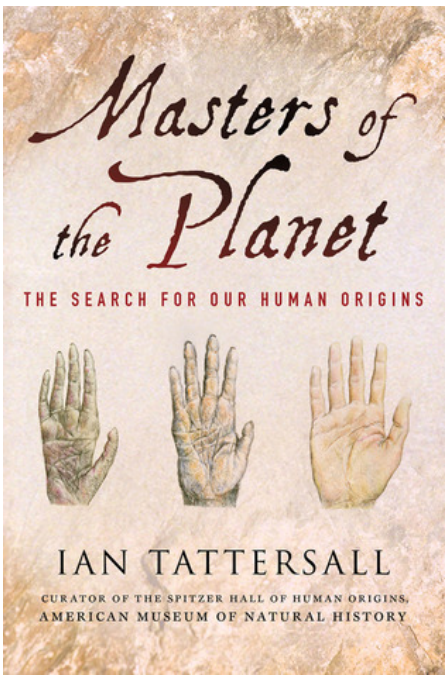

Masters of the Planet: The Search for Our Human Origins

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Fifty thousand years ago—merely a blip in evolutionary time—our *Homo sapiens* ancestors were competing for existence with several other human species, just as their precursors had done for millions of years. Yet something about our species distinguished it from the pack, and ultimately led to its survival while the rest became extinct. Just what was it that allowed Homo sapiens to become masters of the planet? Ian Tattersall, curator emeritus at the American Museum of Natural History, takes us deep into the fossil record to uncover what made humans so special. Surveying a vast field from initial bipedality to language and intelligence, Tattersall argues that *Homo sapiens* acquired a winning combination of traits that was not the result of long-term evolutionary refinement. Instead, the final result emerged quickly, shocking our world and changing it forever.

Masters of the Planet: The Search for Our Human Origins Details

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From Reader Review Masters of the Planet: The Search for Our Human Origins for online ebook

Jean says

Given another chance at life, I would have chosen to be an anthropologist. So when I saw a new book about the development of humankind, I quickly grabbed it up (on my Nook). It was a great read for anyone interested in how homo sapiens came to be the premier species on the planet. Tattersoll tells a great story, using findings by researchers back to the earliest times of primates (over 2 million years ago). I learned that the path to homo sapiens didn't come straight through one species, but could have developed from a number of different possibilities. I read it as if it were a mystery, quickly, even though I knew how it "ended." Kind of. The review in The Atlantic called it "masterful," and I agree. The most interesting thing I learned is that what distinguishes true homo sapiens from other species is our ability to engage in symbolic reasoning, which explains our capability to engage in language (our language ability is also a development of the configuration of our heads and throats). I never had thought about this; very eye-opening stuff.

One negative note, which almost caused me to give this review 4 stars: At the end Tattersoll has a Coda, in which he takes humans to task and says that since we are "masters" of this planet, we better get our act together before we ruin the planet (my words, not his). I suppose it's almost impossible these days to write a book about the development of humans and not give the Jeremiad at the end, but I wish he had resisted.

Christopher says

I read this book because I'd been told it was a good introduction to the study of human ancestors attested in the archaeological record. The cover of the book claims that it is "the authoritative account of how *homo sapiens* edged out its cousins to become the world's only human species". The latter may be a better characterization, but that only applies to the tag-end of the story (basically why "humans" displaced Neanderthals). I found that the early parts of the book dealing with human ancestors were basically sketchy, and not particularly clearly written. The plot line and general development of the various lineages attested in the archaeological record were hard to follow. This was because what the book really concentrates on is what makes humans distinctively human and when this "trait" first appeared.

Evolutionary theory should mean we are just another animal (the "hairless ape"). In the past, humans used to distinguish themselves on the basis of possessing some characteristic that set them off from all other animals on earth: a "soul", language, reason, tool making. Though the book presupposes a belief in Darwinian evolution on a genetic basis, the author really doesn't like some of the implications of this, and wants to know what makes us "special". His answer is "symbolic reasoning". Hence, my complaints above about how the book isn't a very good guide to evolutionary steps that led to *homo sapiens*. What he's most interested in is how and "why" symbolic reasoning arose, and this focus stands in the way of a clear presentation of the earlier forms of "proto-humans". The author isn't really interested in them in their own right, merely as precursors of "us".

It's also interesting that in the service of this conception and also (I think) as a result of ideological conceptions, the "evolutionary" story as it's presented here makes little sense. We're told on an individual basis, brain size has no relevance to intelligence, but on a species-wide basis (i.e., on the basis of averages), it does (pp. 100-101). This makes absolutely no sense. The overall averages can only work if there is a statistical correlation overall. I think the author feels compelled to say this because he apparently is a believer in the leftist idea of people being a "tabula rasa" from a mental point of view. That is, he rejects the

idea of there being an evolutionary (i.e., genetic) basis to intelligence, and so such matters much be "cultural". This notion has odd side effects.

On pp. 132-33 we're told that "it is hard to see a common environmental thread in the trend toward bigger brains that all three lineages independently followed. Somehow, very early on, the genus *Homo* must have acquired some underlying predisposition, biological or cultural, toward brain enlargement." What does this mean, "underlying predisposition"? Underlying what? Predisposition toward what exactly? Having bigger brains just for the fun of it? It sounds like a "quasi-evolutionary" equivalent of the Hegelian "spirit" of history that is an "intelligible" process that leads intentionally towards the realization of human liberty. In this case, the "invisible hand" apparently is guiding those stupid pre-humans in the direction of perfection as us with our "symbolic reasoning". Note the weasel words "biological or cultural". Since the author is talking about the period long before homo sapiens, and argues strongly against any "symbolic reasoning" among them, it's hard to see what this "cultural" element could be. Presumably, it means nothing except as a reflex of his notions that contemporary human behavior has a purely cultural basis and that genetics has nothing to do with it.

In connection with our "specialness", the author has a bad attitude about Neanderthals. When they apparently kept beads that they dyed and buried with their dead, he poo-poos any conclusion that they were thinking "symbolically", but when homo sapiens do the same thing (with no more evidence as to what they meant by it), he waxes rhapsodic about what a big step this was. He also strongly downplays the evidence of human interbreeding with Neanderthals. I had to laugh at that point. His tone is reminiscent of the scene in the movie "Starship Troopers" where two "talking heads" are arguing on television about the possibility of some sort of thinking bug guiding their actions. After the woman advocates this idea, the man responds, "Frankly, I find the idea of a thinking bug oh-fensive". Seemingly, the author of this book feels the same way about the idiot side branches of human predecessors. He finds the idea of us being related to them oh-fensive!

So, how exactly did people develop the biological capacity to be human? The answer to that question is rather disturbing in terms of evolutionary theory. The first remains that are noticeably human are those of "Turkana Boy" from about 1.5 million years ago. He looks very much like us, yet is a long time before our "symbolic thinking". Why exactly did he change so much in physical appearance, apparently very suddenly? The answer supposedly comes from the "stickleback fish". These have a bunch of spines on them, but some of them started living at the bottom of the sea where they might get stuck because of their spines. This meant that a change in the "junk" DNA that controls the timing of developments controlled by the "real" DNA led to the disappearance of spikes on the bottom of the fish. Supposedly this took place quickly (though how anybody knows that, I don't know). This change in one very concrete and specific trait is supposed to be comparable to a drastic change in the entire bearing and overall appearance of an entire organism (pp. 96-98). The explanation sounds very implausible.

Oddly, the author makes no mention of genetics and how early "humans" actually bred when discussing the spread of homo sapiens, supposedly out of Africa in the period ca. 100,000 BP (="before the present"). While other sorts of early humans had spread throughout the old world hundreds of thousands of years earlier, supposedly all humans go back to a single female who supposedly lived in Africa around 100,000, and then humans spread out from there. Partially this story comes from genetic analysis that claims that "Africans" (as if that were a unitary concept!) have "mutated" least, and also from the fortuitous fact that early fossils are often found in Africa. The notion sounds very implausible, but it does fit it with the "we're special" story. Even though "humanish" beasts like homo erectus/ergastes (a distinction the author doesn't spell out very clearly) had been doing things like making shelter and cooking with fire for hundreds of thousands of years, it was some infinitesimally small band of humans who were destined to march out of Africa a second time and defeat all their loser cousins.

So, we come back to this "symbolic reasoning" that makes us so much better. There's a particularly disturbing passage from the point of view of evolutionary theory in the section on the development of

language (which is taken to be the "bearer" of all this symbolic thinking). Apparently all of this was merely a fortuitous accident, one moreover that is entirely *not* motivated by the "survival of the fittest". "…our new cognitive ability was acquired as a byproduct of the hugely ramifying genetic accident that resulted in the appearance of *Homo sapiens* as a distinctive entity. Happily for us, the resulting creature turned out to function pretty well" (p. 210). The claim is that the functions that gave rise to symbolic reasoning had already existed there for no good reason, and were simply "kicked-started" for no perceptible reason at a much later date. Seemingly, "evolutionary novelties often persist if they don't actively get in the way" (p. 211). So seemingly all the hugely complicated changes in brain morphology and other systems (like those for speaking) just "turned up" for no reason at all (back with Turkana Boy?) and sat around dormant until it was time to kick some Neanderthal butt. "In this view, the addition of the neutral ingredient that predisposed our species for symbolic thought was simply one passive consequence of the developmental reorganization that gave rise to the anatomically recognizable *Homo sapiens* some 200 thousand years ago. And it seems justifiable to look upon what happened as analogous to the construction of an arch, which cannot function until the keystone has been dropped in place. What's more, whatever the 'keystone' was in our case, the new potential it created then lay fallow for a substantial length of time until its symbolic potential was 'discovered' by its owner."

I'm sorry, but this conception is entirely at odds with the most rudimentary functioning of the theory of evolution, which entails the existence of a) a world of limited resources, b) an excess of creatures competing for existence and reproduction, and c) change motivated by the reproduction in successive generations of genetic material that's better suited for survival than that possessed by creatures with genetic material less suited for survival. The scenario put forward here indicates the emergence for no "environmental" reason of traits that lead to a "predisposition" that isn't actually put into practice for hundreds of thousands of years during which these "traits" are nonetheless retained genetically because of this "predisposition". Furthermore, the analogy with the arch is entirely *un*justifiable. a) An arch is the work of a conscious creator who knows what he's doing and puts together the pieces for a purpose, and b) the arch will soon collapse without the keystone. That is, the underlying stones will not sit around for eons "waiting" for the capstone, without which the other stones are inherently unstable and prone to collapse.

So why does the author come up with such an "explanation", which seems to imply some sort of "guiding" external force and which is at variance with regular evolutionary theory? Presumably, the explanation is ideological. If the human brain developed from the period of 200,000 BP down to the time when humans gained a much greater control over their environment through cultural means (the development of material surplus via agriculture, at a date of no more than 12,000 years ago), then there must be a genetic basis to human behavior and human intelligence. This implies "evolutionary psychology" and "behavioral genetics", i.e., the notion that there's a genetic factor in human behavior. Clearly, the author rejects this notion.

This rejection has a strong influence on the author's analysis, but he never openly addresses the issue. It's this sort of hand-waving and ad-hoc attempts to argue away the uncongenial implications of evolutionary theory that give support to those who reject evolutionary theory in its entirety. The story presented here clearly makes no sense, and this is the result of two rather different "human" considerations that have nothing to do with "science": a) the desire to maintain something "special" about humans to distinguish us qualitatively from other beings (including out evolutionary cousins) and b) the idea that "all men are created equal", which is taken to mean that there cannot be any inherently genetic distinction between either individuals or groups of individuals.

Fundamentally, this book shows that Kuhn was certainly right in arguing that what "scientists" find is very much influenced by what they expect to find. While Kuhn's argument was founded internally on the basis of the influence of pre-existing scientific theory on scientific observation, it would seem that it applies all the more to politically motivated interference. What I wanted was a straightforward discussion of "who" Lucy and Java Man and all those earlier forms of human "ancestors" were, but instead I found the evidence laid out confusingly and illogically because of the author's "non-scientific" considerations.

Beth says

Well done book by prolific author on fossil records and what can be assumed by them. Tattersall goes deeply into original earlier beliefs about how man evolved but also adds current newer ideas of how we have come to be "Masters of the planet". Basically, what I got out of it is that people have a brain that uses symbolic thinking simultaneously on a variety of levels and can use language. I found it interesting that the farther one travels from man's beginning in Africa, the less sounds the people use in their language. I guess it is a little like the game of "telephone" where something is lost by the time the person at the end repeats the message. I appreciated having this as a complimentary Goodreads book. I did struggle with the amount of detail that wouldn't stay in my head becuase I am so unfamiliar with the topic and couldn't seem to grasp the difference between 60 million years, 25 million years, 10 thousand years and etc.

Rossdavidh says

I have read a couple other books by Ian Tattersall previously, one on Neandertals specifically and one on non-sapien humans generally (if we can take "human" here to mean "anybody from the genus Homo whether they are Homo sapiens or not"). So, it did pass my mind that maybe I didn't need to read another Tattersall book on the topic of our distant ancestors. But I did, and I'm glad of it, because it turns out that the distant past of pre-sapiens ancestors, is a rapidly changing field.

Part of this is that new fossils are being found all the time, and they each add some more detail to what was even ten years ago still a very sketchy picture. For example, when he describes a find of an entire family found in a collapsed cavern, all killed and apparently butchered (in the literal sense), it adds a bit of poignancy to the discussion of what they were like and how they lived. Also, only recently were we able to discover such additional details as which females and which males were related to each other (based on DNA analysis), and what kind of food they ate (based on the ratio of C12 and C13 in their bones).

It's also interesting to note how the field has sometimes seen pendulum swings back and forth on topics like whether or not we've had a long gradual evolution since we parted ways with the chimpanzees, or a series of rapid stops and starts. Another question which has seen a lot of changing opinions recently is how many other species of human have there been on the planet at one time, and how many other near-human species such as Australopithecus. The discovery of Homo floresiensis (aka "the Hobbits") in Indonesia is quite recent, and has added to a trend wherein it appears more and more likely that there used to be a lot of different kinds of people at the same time who walked on two legs, had lost most of their hair, and used purpose-made tools which required forethought to create.

A more difficult task, which Tattersall reminds us of on more than one occasion, is to try to imagine what their thoughts were like. In fact, he specifically warns us against believing that we can know what they thought like, since for most of these species, even the relatively recent Neandertal, there is not a whole lot of evidence for abstract symbolism. They may have been smart (the Neandertal had bigger brains than our more direct ancestors did at the time, or we do now). However, they did not think in the way that causes one to do paintings on cave walls, for instance.

On the other hand, the discovery of a skull from a pre-sapiens human that had lost all but one tooth, who had lived for years after the loss of their teeth, almost certainly means that the individual was kept alive by the others in the community. That, in turn, suggests some amount of compassion, at least for members of the

same group. On the other hand, since there weren't a lot of sweets to rot your teeth with back then, and the teeth are not just worn down but rather entirely missing, that does raise the question of how they lost all but one tooth. Probably not in an accident.

The book is full of details like this that help to imagine these ancient humans as real living beings, trying to keep themselves and those close to them alive while living a much more precarious existence than any of us ever are likely to. They not only had to deal with other violent humans, they also had to deal with the very real fact that they were not exactly at the top of the food chain yet.

Between you and your last forest-dwelling hairy African primate ancestor, hundreds of thousands of generations of your ancestors had to make their way in a world where there was great danger lurking, with little in the way of either natural equipment such as claws or wings, or artificial tools such as metal weapons or armor. They had to stave off famine, and find a way to survive in an environment that was often changing. Most species can simply follow their instincts with regard to what to eat, what dangers to avoid and how, and where to go (or not go). Your ancestors had to figure this out on their own, as the African and world climate kept changing from Ice Age to warm spell and back again. Forest changed to savannah and then desert, and then back to savannah. There was no game plan written in their genes on how to deal with this, and no game plan written anywhere else to consult either. But, they did it.

It is an amazing tale of gritty and scrappy survivors, and it is your people. You should read about it.

Paul R. Fleischman says

It is amazing how little we know scientifically about the origin of our own species. Modern science has enabled us to look through telescopes across billions of light years, and has also made it possible for us to sequence the genome that carries the information necessary to run our bodies and ourselves. Modern science, however, is still struggling to create a coherent narrative about the evolution of our Homo sapien species, because our memory is personal and not historical, and because the evidence we need is quickly lost through the vicissitudes of fossilization and preservation. Masters of the Planet, by Ian Tattersall, is an excellent review of the subject by a lifelong student of it, and an acknowledged expert in his field. The strength of this book is its careful use of archeological and anthropological data. The weak point of this book is that it tries to simultaneously tell a linear chronological history of species evolution, while it also tries to explain evolutionary theory, and these two narratives both enrich and disrupt each other. Because of this interference between the two major themes, I found I appreciated this book better after the second reading.
Tattersall reminds us that there is no accepted definition of the word, “human.” His book traces the fossil discoveries of earliest hominids (bipeds) in Africa, about seven million years ago, through time, up to the point where our species, Homo sapiens, became the only human species on the planet, even though for millions of years before us, Earth always hosted multiple hominid species in co-existence. Most of this book discusses the fossil finds upon which current theories of human existence are built. Tattersall reminds us to carefully differentiate evidence from hypothesis, and not to “conjecture too much from limited observation.” Along with the historical narrative, Tattersall takes up a number of theoretical questions.
To me, the most interesting and enjoyable feature of Masters of the Planet is Tattersall’s explanation of the mechanism for human evolution. He sees environmental change as the background force that creates changing conditions, local extinctions, and genetic selection. He emphasizes that his understanding of human evolution is not based upon belief in a “single central lineage.” He describes the evolution of our species as (in phrasing based upon his own words) evolutionary ferment, a stage packed with actors, a whole range of relatives now extinct. He informs us that human evolution is a forking bush and our history of it is based upon a motley assortment of specimens. We evolved, he says, through a complex minuet among hominid species, tiny populations washed back and forth as the world changed around them. Thus, instead of looking

for one or two or three ancestors, we need to understand our evolution as the final product of a dynamic, varying, situational, multi-focal set of happenstances that occurred over many millions of years, and that produced many varying human species and scenarios.
Another important agenda of this book is Tattersall's attempt to explain the unique intelligence, and planet-wide success of our species, that evolved in Africa a few hundred thousand years ago, and unlike all other human species, which died out, we have become masters of the planet. Tattersall focuses his explanation upon human symbolic, cognitive style that enables us to manipulate information. What is the origin of this dramatic leap in our intelligence, as compared to the Neanderthals, with whom we occasionally interbred and who were strong adept hunters, who mastered fire, but totally disappeared? Of course, Tattersall cannot really answer this question, because the evolution of human intelligence has left no fossils or artifacts, and so the description he puts forward as explanation, is really just post hoc description. He tells us that our intelligence, "appeared suddenly all at once…a profound cognitive discontinuity…a disconnect." He hypothesizes that our intelligence was not primarily developed to facilitate the search for food and shelter, but evolved through the complex social interactions of large groups, or through the use of language, that enables intangible symbols to be recombined to generate alternative versions of reality.
The best we can get is intelligent surmise. Homo sapiens emerged as a jump in evolution to a whole new level of complexity.
Tattersall ends his book with an anguished coda, describing how human intelligence, which is focused upon paying attention to highly immediate consequences, leaves us, "threatened by our own remarkable attributes." He implies that, smart as we are, we may be too stupid to endure.
From the beginning of our species to its potential end, we are left with mystery and wonder.
Reviewed by Paul R. Fleischman, author of Wonder: When and Why the World Appears Radiant.

Dave says

Good overview of the current fossil record. Really interesting all the hominid offshoots and complexity of our evolution. A little dry for me but I gained some understanding about paleontology and really how complex and random evolution is.

Billie Pritchett says

I've heard that when reviewing a book, you should review the book that you've read and not the book that you've wanted to read. It's hard not to violate that general guideline when writing up something about Ian Tattersall's *Masters of the Planet*. Tattersall gives you the nuts and bolts of how anthropologists differentiate and sometimes disagree about differentiating human beings from other animals and ancestral relatives. If you like that sort of thing, you will enjoy the book.

What I really liked was Tattersall's take that what mainly differentiates human beings from any other animals is language. Language allowed us to represent the world symbolically, and roughly 60,000 years ago we acquired that ability. Interesting, too, is that we seemed to have had the biology for language for a long time but then, somehow, at the 60,000 year mark, something changed. And we still don't know what.

This book wasn't exactly what I was looking for. I'd like a book with more exploration of human language capacity. But again, there's that guideline.

Adrian says

Very stimulating to reengage with physical anthropology. Very clear analysis of the major finds in human evolution and the pathway from australopiths to Homo. The decision to become fully bipedal was a near run thing. We almost didn't make it. I like that Tattersall thinks the invention of fire happened long before we have evidence for it. He's excellent when dealing with bones but becomes dubious when 'symbolic consciousness' is being bruited about. It's assumed Cro Magnon had language but not Neanderthals. Based on what? I'm also leery about a date of 60,000 years ago for the dispersal of Homo sapiens out of Africa. Still, a fascinating book.

Ghadeer says

Too detailed for me

Steve Van Slyke says

Just before reading this I read Lone Survivors: How We Came to Be the Only Humans on Earth by Chris Stringer. I wish I had read this book first because it covers the whole span of human evolution from before the split with chimpanzees 6-7 million years ago, whereas Stringer's book focuses on the development and exodus of modern humans from Africa 50 to 60 thousand years ago. Thus this book logically and chronologically leads you to Springer's book.

Tatersall agrees with Stringer that there was a so-called “Great Leap Forward” relatively recently in human cognitive ability and rate of technological development, and that it happened in Africa and later spread through Europe and Asia.

Tatersall also emphasizes that natural selection was not the only factor involved in our development. Genetic drift caused by mutations that became conserved in small isolated populations may well have been another critical factor. And he describes how upheavals in the climates of Africa could have caused these isolations.

I personally find the stages of stone-age technology fascinating as it progresses from simple sharp flakes (the only skill level I have been able to attain) to the making of hand axes and eventually spear points and knives. For example it is amazing that a simple technology like flake making or hand axe making could last for hundreds of thousands of years with no recognizable advancement, and then suddenly, a multi-step sophisticated method suddenly crops up as if “overnight.”

I also loved his discussion of the various theories about what it was that caused our ancestors to adopt bipedality. He briefly gives points to my own pet theory, which is that when our ape-like ancestors had to begin leaving the forests and venturing into more open territory to gather food, they eventually discovered they could carry more food back to the safety of the trees by walking on two limbs instead of three (one being used to carry the food).

The author also summarizes a wealth of new research that modifies and in some cases overturns old theories about bipedality, brain development, climatological influences, etc. For example, there was a discovery in

2010, that if valid, would push the earliest evidence of tool-making back 800 thousand years to 3.4 million years ago! He also specifies what we still do not know; e.g., for the period prior to two million years ago, there is not one fossil in any collection that can claim to be the direct progenitor of the hominid species to come.

There is much more I could say, but I'll leave it there and simply say this is a wonderful book that will bring you almost up to the present day in the fascinating search to find out who we are and how we got here.

Captain Sir Roddy, R.N. (Ret.) says

Ian Tattersall's new book, *Masters of the Planet*, is an eloquently and well-written story of our human origins. While much of the material included in this book was familiar to me, I have to say that Dr. Tattersall's organization and presentation makes this book the perfect gift for someone looking for a thorough but easily understandable first exposure to human evolution. Tattersall's love of systematics, anatomy and taxonomy shines through brightly as he uses the narrative to carefully document, explain and interpret the important fossils and archaeological evidence associated with many of our hominin ancestors.

This anthropological and archaeological detective story begins some 5-6 million years ago and culminates with the origin of anatomically modern humans (i.e., *Homo sapiens*) in Africa nearly 200,000 years ago, and subsequent dispersal through much of the rest of world starting about 60,000 years ago. This is the elegantly told story of--to borrow a phrase--"bones, stones, and molecules" that provides Tattersall's synthesis and interpretations of the current state-of-knowledge associated with the fossil evidence, the stone-tool traditions, and the latest genetic data. Finally, for those who are interested, Tattersall has provided twenty pages of detailed notes and bibliographic source citations for each chapter at the end of the book. I really enjoyed reading *Masters of the Planet: The Search for Our Human Origins*, and unhesitatingly recommend it for those interested in the natural and biological sciences.

Carlos says

This book was exactly what I was looking for when I picked it up: a comprehensive though not over-detailed discussion of the latest understanding of the path of human evolution. Tattersall manages to convey both the amazing discoveries and the great room for additional discoveries that have marked our understanding of human evolution. As can be expected, Tattersall discusses the fossil record in depth but still manages to keep the readers interest and does not get derailed in the minutiae of cranial anatomy. Equally he manages to make the reader familiar with the different interpretations which fuel the passionate disagreements between paleoanthropologists as a result of the latest finds. He manages to give the reader a contextual understanding of the world in which the evolving hominid lineages made their debut. Lastly in what is perhaps my favorite parts in the book he demystifies both the importance and overhype of bipedalism and brain size as determined by cerebral volume. I cannot fail to recommend this book to anyone interested in how humans got to where we are today.

Woodge says

This science book club pick attempts to answer why we emerged as the dominant species in the homo genus. For a book under 300 pages it sure seemed like a long book. Partly to blame is the dry writing. It's heavy on fossils and minutia on this or that two-million-year-old bone. I read every word of the first third of this book and then skimmed heavily. I was a little late picking up a copy of this and before I received it, I was dipping into another book that touches on the same theme. It's called Sapiens by Yuval Noah Harari. I can tell you from the first 70 pages of Sapiens that it's much better written than this one. Too bad we didn't pick that one instead (although, Sapiens would take a lot longer to read -- it's thick). This guy, Tattersall, isn't much of a storyteller, which is what, I, the layman, would appreciate more. And, for the record, Neanderthals aren't ancestors of ours but ancestral cousins. Although, there's enough similarity between Neanderthals and homo sapiens that there was limited interbreeding between them (that could produce fertile offspring). Just a smidge of action there.

Stuart Macalpine says

One of a few books which have recently come out about human evolution as a result of the dawning realization, over the last few decades, that there have been many hominids wandering about Africa during the last two million years, and that human evolution isn't a simple story of a single lineage. The sections about evidence of social behaviour and diet are fascinating... but the best part for me was the last section which mentions the emergence of 'paleo linguistics' studying the way phonemes spread with languages. It is a great informative read - the Kindle version is a bit ugly, which is a pity - just lack of care by editors.

Begüm Saçak says

This book is a scientific account of history of apes and us as a complex species. The book explains why things happened the way they did and the author points the evolutionary changes and their unique nature. In other words, evolutionary changes might not take place at once but they can be preserved in the system to be co-opted in future circumstances. A well-written, scientific book with illustrations. I found myself googling some subspecies to visualize some parts better. After reading this book, I realized once again that anthropology and linguistics go hand in hand. In other words, what makes us human is closely related to our symbolic behavior and accordingly, to produce language. Using language relates to our ability to think about ourselves and other people around us (as individuals) which might have originated as a result of living in crowded tribes. But the origins are far older than that. A fascinating read which took me back millions of years ago. Highly recommended.

Caleb says

I really enjoyed this thoroughly researched and illuminating exploration of human evolution. It is difficult to stay up to date on all the new fossil finds, and this simple chronological explanation of all the evidence to date successfully pulled together all the disparate strands of evidence into a meaningful narrative. The only weakness is that discoveries are being made so fast, especially in improved genetic sequencing, that this book will probably be out of date in another five years. Although speculative, I also thoroughly enjoyed the discussion of theories on the origin of language at the end of the book. The biggest takeaway for me is a

much better sense of the tenuousness of our humanity in the vast spans of history; also a feeling of connectedness to our animal past, and the long and difficult road, with many false starts and dead ends, that lead from one to the other.

Wes Cobb says

Less the story of human (e.g., homo sapiens) dominance of the planet than a catalog of fossils cleverly dressed up. Tattersall devotes 90% of his book to picking through the sparse bones of ancestors millions of years old and gives the most interesting part of the story - how modern humans became masters of the planet - little more than an afterthought in last chapter of the book.

Todd says

I read this book in preparation for teaching a course on the relationship between human cultures and the non-human environment. We begin the semester with a section on human evolution where I establish the evidence for a naturalistic explanation of culture. I have had problems finding a book for this portion of the class, mainly because the books written for a general audience (as opposed to anthro or bio majors) are dominated by bad science writing filled with just-so stories, libertarian fantasies, and Evolutionary Psychology's most egregious sins. I am happy to report that this book does a fantastic job of not only walking the reader through the current understanding of human evolution, including major debates, gaps in the evidence, and clear explanations of the scientific process. The book presents a fascinating synthesis and repudiates some of the more common myths floating around the popular consciousness about human evolution, beginning with the argument that the Ardipithecus walked upright and dwelt in trees, that bipedality did not evolve afterwards but was an exaptation. The author does trip in the last two chapters as his desire to avoid inappropriate reductionistic explanations of human behavior leads him first to deny the importance of behavioral traits in the selective process and to overestimate the power of culture, and then to make nonsensical proclamations about society and culture in the Coda. This critique does not detract frothe usefulness of the book to introduce newcomers to the fun and captivating field of human evolution.

Jim H says

Superb book. Exactly what I was looking for... an examination of our early divergence from other species. Chock full of interesting sidebars, too. My only possible complaint is that it was too short but that's because Taattersall sticks to what we know up to this point.

Elaine says

Masters of the Planet by Ian Tattersall
If you’re at all interested in how humans came to be human–and I am–you’re going to love this! Even if you’re not, you probably will. Oh, in the beginning, he does throw the names of species in, but that’s okay because what he says about each is so tantalizing. So, forget the names, except for Austropithecus, Neanderthal, and Homo, and imbibe the methods used to uncover and analyze each fossil, including ancient weather.

If you've read Chris Stringer's Lone Survivor, you'll want to read this. I found that excellent, too, but he and Tattersall are not in total agreement. Science thrives on disagreement. That's what makes it fascinating.

Especially interesting to me is Tattersall's excellent elucidation of how each scientific field has paradigms which determine, not only what he or she concludes, but also what they include. That is, what data they use is determined by what will fit into their paradigm. In science, too often, the researcher finds only what he or she was looking for. Until, as Kuhn wrote, someone does use new data, which causes the paradigm to shift. I was lucky enough to go into Linguistics just as Noam Chomsky blew the Old Schools out of the water, and the Brits, in contrast to Chomsky, began analyzing structures beyond the sentence.. Those were exciting days, as theses are for paleontology.

Do I agree with Tattersall completely? No! I especially disagree with his assumption that before language developed, Homo sapiens had to have symbolic thinking. However, not all language is symbolic, and, when it started, language referred to concrete things. Saying you need symbolic reasoning before you can speak, is like saying you need abstract math before you can add 2 plus 2.