



Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity

Raymond Tallis

Download now

Read Online ➔

Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity

Raymond Tallis

Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity Raymond Tallis
Tallis argues that the rise of biologism has serious consequences and demonstrates that, by denying human uniqueness and minimizing the differences between humans and their nearest animal kin, it misrepresents what we are, offering a grotesquely simplified and degrading account of humanity. He suggests that seeing ourselves as animals may lead us to find reasons for treating others as less than human.

Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity Details

Date : Published July 18th 2011 by McGill-Queen's University Press (first published June 30th 2011)

ISBN : 9781844652723

Author : Raymond Tallis

Format : Hardcover 400 pages

Genre : Philosophy, Science, Nonfiction, Psychology

 [Download Aping Mankind: Neuromania, Darwinitis and the Misrepres ...pdf](#)

 [Read Online Aping Mankind: Neuromania, Darwinitis and the Misrepr ...pdf](#)

Download and Read Free Online Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity Raymond Tallis

From Reader Review Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity for online ebook

Fr. Ted says

This is a really hard read. Tallis is obviously well read and a gifted thinker, but this also makes him a hard read if the topics in science and philosophy are not things you are already familiar with as he is a name dropper and many of the names may mean nothing to you. His writing style is also difficult at times as you have to carefully follow whether he is arguing a point of science or logic. But overall his critique of both where certain neo-atheists are taking Darwin's theory and the claims being made by atheistic materialists regarding neuro-science are very profound. Tallis doesn't believe their claims are justified by current science and they in fact are merging and confusing science with their philosophical presuppositions. Tallis is an atheist himself and looking for an understanding of human consciousness in science, but he very much thinks that the ideology of certain neo-atheists has completely overshadowed their science. Tallis believes there is something unique about humans among all the beings on earth and advocates that consciousness has in a sense put humans "above" passive participation in the evolutionary process. He doesn't believe consciousness can be explained by the current claims of materialists.

Jim Coughenour says

I've enjoyed the Tallis style of fisticuffs ever since I first read his barbed assault on post-structuralism in Not Saussure. In the last 15 years, I've bought far more of his books than I've finished, but I did make through this one – despite his penchant for logic-chopping points into bosons and inventing neologisms like "neuromania" and "Darwinitis." If you're the type of skeptic entertained by Frederick Crews on Freud or Paul Feyerabend on scientific method, then you'll find Tallis a treat.

Tallis is an atheistic humanist whose humanism is as vigorous as his atheism, which makes for fine polemics. Here his double-barrels are aimed at thinkers who reduce the mind to the brain (which seems to include almost everyone who's written on the subject). He makes great sport with our current credulity toward functional magnetic resonance imaging (fMRI) – the observation that some specific activity "lights up" some part of the brain can apparently convince of us of anything. For much of the book he marches us through the perils of neurological naïveté, with its "risible simplification of human behaviour" – to the point that I now regard a brain scan ("that fast-acting solvent of critical faculties") as suspect in the hands of a physical philosopher as the photographs of the Cottingley Fairies.*

He saves the fun stuff for the end, savaging the "neuromanic" reduction as it manifests in art and literary criticism, law, ethics, economics and (remarkably for an atheist) theology. Here, for example, is his comment on A. S. Byatt's application of neurological findings to the poetry of John Donne:

By adopting a neurophysiological approach, Byatt loses a rather large number of distinctions: between reading one poem by Donne and another; between successive readings of a particular poem; between reading Donne and another metaphysical poet; between reading the metaphysical poets and reading William Carlos Williams; between reading great literature and trash; between reading and many other activities... That is an impressive number of distinctions for a literary critic to lose.

At the heart of the entire discussion is the mystery of consciousness, and Tallis freely admits he cannot clarify the conundrum – at best we end up with ontological agnosticism: "the failure to find a neuroscientific basis or correlative of the self is evidence not that the 'I' is an illusion, but that neuroscience is limited in

what it has to say about us."

*For the bemused, I should probably mention that Tallis is a gerontologist specializing in the treatment of epilepsy and stroke, in which fMRI plays an critical diagnostic role.

Kristin says

I think if you read this book carefully and seriously you can't help but become a bit of an "ontological agnostic", a label Tallis (who is also an atheist humanist) applies to himself at the end of this thought-provoking book. His arguments lend serious credence to the idea that human consciousness cannot be explained in strictly biological terms, and therefore, the increasingly popular "my brain made me do it" type arguments, as well as simplistic evolutionary accounts of why we behave the way we do, simply lose credibility.

The arguments are complex and carried out over the space of many paragraphs and chapters, but a couple of his main critiques can be (rather inadequately) summarized as follows:

1. A purely physical description of the world does not account for our own conscious experiences of it. In strictly physical terms, objects can be measured objectively, but there is no physical accounting of the way things appear *to us*. "The very notion of a complete account of the world in physical terms is of a world without appearance and hence a world without consciousness." It follows then that our conscious actions are not causally hardwired into the physical universe (an argument that addresses both neurological determinism and the more general old-school determinism).
2. There is a bit of a self-defeating fallacy to many of these reductive type arguments. For example, if science has now proven to us that we are the slaves of a subconscious irrationality, is this claim itself the product of subconscious irrationality? If my behaviors in mate-finding and child-rearing are actually rooted in distant evolutionary drives, is my own realization of this also the product of a distant evolutionary drive? Another quote from Tallis: "To accept science as the last word on the mind is to overlook that which made science possible: the mind itself."

I can't do the arguments justice in a few short blurbs, so suffice it to say that this is one of the most hopeful books I've read in a long time. I feel justified in clinging to the belief that my free will is not an illusion, and that my decisions, feelings, and thoughts are not just by-products of subconscious processes merely masquerading as a conscious self. And that's kind of a big deal.

Tristan Sherwin says

Admit it, the title alone draws you in, doesn't it?

Raymond Tallis is on top form in this amazing book, expertly describing the complexity and the uniqueness of being human, whilst exposing scientism's leanings towards understanding human consciousness as mere brain-activity and thinking of human behaviour in the same way as animal behaviour (and vice versa). Through his expert knowledge of biology, and his very well sharpened philosophic skills, Tallis demonstrates that to be human is something that transcends being an "animal"; we are very different, and these differences need to be realised.

Now before any "creationists" reading this begin to believe that they have stumbled upon the science book they've been waiting for; Tallis is not arguing against Biological Evolution or engaging in an anti-scientific rant. Tallis, as an Atheist, Humanist, Professor of Geriatric Medicine at the University of Manchester, and a pro-evolutionist, is arguing that human evolution has moved us beyond the state of being "just an animal". In his own words; "As an Atheist and also a Humanist I believe that we should develop an image of humanity that is richer and truer to our distinctive nature than that of a exceptionally gifted chimp" (p.10).

I loved this book! Seriously, it was extremely enriching - especially against a back-drop of consistent pop-science news articles that wish to describe everything about us, and our behaviour, using a frame of reference which is constructed out of animal-analogies and brain-scans. Tallis, through what many would consider his magnum opus, provides a beautiful description of our transcendent state.

This is a big book, in many ways - so, if you want to get to grips with Raymond Tallis prior to tackling this, then I would also recommend "The Kingdom of Infinite Space: A Fantastical Journey Around Your Head".

Jeffrey Butler says

I've always been interested by the question of free will, and the various arguments around it, so when Peter Watts mentioned this book in one of his blog posts (<http://www.rifters.com/crawl/?p=3415>), I thought I'd give it a try. It did not go well. So if there is no such thing as free will, as Peter often argues, then I rest the blame for this... experience, at his feet.

In fact, it went poorly enough that I did not even manage to finish the book; I hit the wall about two thirds of the way through, and then began to simply skip through for what I thought would be the interesting bits.

In my reading of the book, three principle questions were raised, namely:

- What is consciousness?
 - Do we have free will?
- and most centrally,
- What and where is the Mind?

What was disappointing to me is that Tallis does not answer any of these questions, at least not in any substantive way. What's more, in the end, he argues for what is essentially a non-spiritual dualism. This allows him to argue that the Mind is not subject to the physical laws that govern mere matter and energy but, rather, supersedes them. Thus, he has no need to address the questions of free will or consciousness, at least not directly, because if the mind is out of the realm of the physical, then so are these two questions. He does take a stab at these points, however, which breaks down to the idea that the complexity of our lives is so much greater than that found in non-sentient species that it represents a qualitative rather than quantitative change. This strikes me as disingenuous for a person claiming subscribe to evolutionary theory, which always relies on incremental change - even in periods of rapid adaptation.

And all of these arguments are made after an agonizingly long list of complaints about the imperfect state of current research. Indeed, Tallis offers an extensive critique of some of the hyperbole linking specific behaviors to FMRI data as well as some of the other generalizations made in the field, that are based on a very specific and narrow data set. But this process of critique is an agonizing one. I find his writing verbose, repetitive and somehow, still unclear. Admittedly, I'm a big fan of the rather pedestrian:

- Tell them what your going to tell them,
- tell them what your telling then and then,
- tell them what you just told them

school of presentation. However, the writing in this, highly complex, book felt more like a stream of consciousness rant than a series of well contextualized arguments. And considering that he offers no substantial alternative, he could surely have done this in far, far, fewer pages.

As an additional point of contention with this book I found his arguments around evolution rather unsatisfying. He argues that and that humanity has superseded simple biological evolution (a point I'm willing to accept), and yet he rejects Dawkins "meme" theory because it is too reductionist, and then, in a typical evasion, he fails to offer any alternative.

In Tallis' view, there there was a point in prehistorical human evolution where our species Mind generated spontaneously out of a necessary complexity of (his "Trillion Cognitive Handshakes) and we began to gaze outward at objects as separate from ourselves. This is where he says consciousness began. Personally, I'm more engaged by Julian Jaynes idea of the bicameral mind - that at one point humanity would have reacted to things in an animalistic manner, but that we would experience insights or ideas as voices from a god or spirit. Jaynes then argues that the breakdown of these two halves, into a single Mind, is what generated consciousness.

Now I'm not saying that I buy this explanation - but it is more satisfying than Tallis' handwaving about some critical mass of human interaction that suddenly generates his dualistic Mind.

Despite his lack of testable alternative hypotheses, Tallis argues that his book is necessary, that his critique will allow us to move past the material as a basis for the Mind, and allow us to look for this non-material Mind. He invokes the example of Max Planck's observations on black body radiation and how it initiated the quantum approach to physics. But Tallis' analogy fails for me, as he does not provide any productive hypothesis as Planck did, he simply says that the existing data fails and so all materialistic approaches must also fail. This strikes me as rather a stretch.

In the end, if you are looking for a catalogue of critiques of contemporary neuroscience, this book may be for you. Indeed, a highly edited version of this book would have likely been appropriate and valuable to a smaller, perhaps strictly academic audience, rather than a member of the laity, such as myself. But if you are interested in a cogent discussion of the issues of the Mind, consciousness or free will, then would suggest you look elsewhere.

Mike Rot says

A brilliant rebuttal to those scientific endeavors that wish to explain consciousness away as nothing more than a biological byproduct, a challenge not from the straw man religious fanatic they tend to prop up, but from a self-proclaimed atheist humanist who happens to also be a clinical neuroscientist. To me Intelligent Design is a misdirect, the real danger to the future integrity of human knowledge, to the progress of modern civilization, is this ill-conceived scientism that goes largely unnoticed, that informs policies, that dilutes ethical reviews, that marginalizes the humanities, and all based on a fallacious lie, a fundamental flaw of

basic logic and reasoning that is so easy to disprove, but which those with (as Taleb calls it) "skin in the game" would rather not acknowledge. The problem comes down to an insistence of either/or, like Bush said, you are either for us or you are against us. Such a brute, stupid position. Science works, biology is part of the equation, there is overlap, there are domains where the presently stated laws of physics make sense; but not everything. There is something more to being a human, and this is not a metaphysical flight of fancy, but provable by virtue of the limitations prescribed by science, and by the experiential reality of consciousness as a quantifiable 'something more'. Without appealing to a teleological account of evolution, without entirely re-framing science as we know it, there is no escaping the fact that the characteristics that distinguish us from beasts are not causally demonstrable to known biology, and there is a very convincing case to be made they never will be.

Read this book, it is thoughtful, well-written, fascinating, and I would say, critically important.

Till Noever says

Very, very few books can claim to have changed my mind about something fundamental. This one did. Not an easy read, tightly argued, occasionally polemical and ultimately convincing me that my prior views were probably mistaken.

Richard Paul says

I agree with so much of this book, particularly the attack on crude 'Darwinian' approaches. However, at the end of the day, I think he buys too much into the 'Two Cultures' view. I think there are ways of opposing the reductive trends in current neuro-science without committing ourselves to the idea that human beings are not animals. Yes, we are a very special animal. Despite his repeated disavowals the framework is basically Cartesian- there is Nature and there is us building cathedrals and writing symphonies. I will probably use the book as the foil to one of my chapters.

Greg Nigh says

Tallis has written one very good book and one mediocre book, and they are both between the same two covers.

The first half of Aping Mankind is a sweeping, scathing and often hysterical demolition of the notion that the full panorama of human cognition can be reduced to neural activity. Tallis's brilliance here is not simply in showing that neuroscience hasn't explained consciousness through brain activities. His most compelling achievement is in showing that neuroscience **can't** explain consciousness through reference to brain activities.

Central to his thesis is the recognition that the fundamental properties of consciousness, such as awareness of time and perception of qualities, cannot be represented by physical processes (neuron firings) that do not themselves contain those properties. Physicality, for example, does not experience time or its passage. Time is an ordering of events that relies on consciousness for the ordering. But to use physical processes to explain

the consciousness that has an awareness of time is to smuggle consciousness in to explain itself.

This is one minor piece of a comprehensive critique Tallis offers in the first half of his book, and it's brilliance makes it worth the purchase.

Tallis, though, loses me in the second half. His explanation of how consciousness came to be is interesting, but like so many evolutionary tales it is simply a historical narrative. Such tales are a dime a dozen in the field of evolution, stories that posit a set of adaptive transitions. For some good reasons to doubt such a narrative, see, for example, *What Darwin Got Wrong*.

Tallis then situates consciousness within the community, outside the confines of the brain per se. In this regard he parallels the same argument made in *Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness*.

Ultimately, Tallis's strong commitment to an explanation consistent with conventional neo-Darwinian mechanisms leaves his "explanation" lacking. Any materialist (and therefore randomly driven) explanation that does not account for the accumulation of functional information is not really an explanation at all.

Nebuchadnezzar says

Raymond Tallis plays the Renaissance Man learned in the sciences and humanities come to debunk the twin evils of "Neuromania" and "Darwinitis" in *Aping Mankind*. Let me start off by pointing out where I'm in agreement with Tallis. He didn't need to convince me that there is an epidemic of over-inflated claims coming out of a collection of fields that might be termed "neuro-evolutionary studies." (I've increasingly found myself using his coinages, though I would shift more blame for these phenomena onto the popularizers.) Tallis covers similar territory that Steven Rose did in his attacks on "neurogenetic determinism" and he goes after his targets with similar polemic verve. I also agree that the importation of neuro-evolutionary ideas into the humanities has often been facile. Tallis' defense of the humanities is certainly valuable, especially in the current political climate.

However, Tallis' book is not merely a refutation of Neuromania and Darwinitis. His arguments against them are in part done in the service of defending free will, human exceptionalism, and some of his pet ideas about the nature of consciousness. His positive arguments are less convincing than his negative ones. There is not enough space in one volume to fully flesh out his views and, indeed, one of the chapters is merely a precis of *The Hand: A Philosophical Inquiry Into Human Being* and he references his other books copiously. This can make it difficult to truly judge Tallis' arguments in places even if one still gets the flavor of them.

There are two habits of Tallis' that mar some of his arguments, as Justin Garson notes and expands on in his review. The first is to dismiss partial explanations as worthless. Granted that many studies he reviews are overly simplistic, but this doesn't mean that they contribute *nothing* to our knowledge. His net is cast wide enough to occasionally catch some research that I'd call pretty solid.

The second of these habits is committing a persistent category mistake or fallacy of division. Tallis asserts that Neuromaniacs fallaciously argue that there is no such thing as the self or free will because these things cannot be found in the brain. However, he then uses this to argue that neuroscience has nothing to say about these properties. Tallis seems to take this as a defeater of Neuromania because he only considers mind-brain identity theory rather than also arguing against models of consciousness in which it is dependent on, but not reducible to, the brain.

The book still makes for a good antidote to the pernicious illnesses of Neuromania and Darwinitis, though, even if the positive arguments are sometimes flimsy.

Peter Mcloughlin says

A very good antidote to Neuroscience and Evolutionary Psychology overreach. Fascinating things have come from the study of our brains and our evolutionary origins but excitement on these fronts has led to a blind hubris and a demeaning antihuman deflationary philosophy. A lot of this book's polemic is against the idea that humanity is "just another mammal". Kind of like saying because a person follows the law of gravity when they fall down the stairs that they are just another object with mass. The corrosive overemphasis of reducing humans to just another animal has been deflationary and is leading to a kind of fatalism that works against social hope. This kind of reduction leads to some ugly ideologies much like eugenics lead to some really ugly ideologies in the early twentieth century. Why work for freedom when we are biologically determined automata. Why work for justice for another animal specimen. Let the experts run the human zoo. Why fall in love when it comes down to the right hormones in our sweat and hip to waist ratio anyway just follow this schematic and you will be matched with the best breeding partner.

The author shows how much this overreach is built on a foundation of sand. I recommend reading this before that next pop science book.

laura says

probably a seriously annoying book, but r.tallis had some interesting things to say on 'start the week' this week, and i want to remember that this book exists. he calls both materialism and dualism bankrupt. it's a cool question what the alternatives might be.

Bob Nichols says

Tallis takes on neuroscientists and evolutionary psychologists who, he argues, reduce humans to beasts. We have bodily functions like animals but beyond that, we're qualitatively different and exceptional. Our distinctive trait is consciousness, which has nothing to do with our biology.

Tallis has this theory about the development of consciousness. Our upright, bipedal position frees our hands. During our development as individuals (and as a species), we touch our body and become aware of it as an object and its distinction from the "I" who touches. That distinction extends to the distant environment when we point with our finger. The end result is an "I" consciousness that can separate the body from space and time. From here, like-minded humanity exchanges knowledge and we form a community of minds that contributes to the body of objective knowledge that progressively solves human challenges. Mind becomes transcendent.

I don't know whether any of this has merit, but it is an interesting notion. Where Tallis's argument runs into problems is his refusal to acknowledge our animality in all of this. In one of his many illustrations about how we differ from animals, he uses the example of spitting. In spitting out disgusting food, we are animal, but when we add the human mental element, we spit to indicate contempt for someone. O.k., but why do we have contempt? What is that about? And that question prompts others. Why do we love? Why are some

ambitious for power? Why are so many preoccupied with status and rank? Why do we defer to leaders? Why do we conform to the group?

Tallis is offended when the "material metaphysics" of the ultra Darwinists downgrade religious beliefs. Religious belief systems, he says, are the result of our self-awareness about our own mortality, something animals do not have. Isn't this also an example of not just our humanity, but of our animal desire to live and, because we can think, to live forever?

How many of these ends of behavior are built into our survival needs? How many of these ends are served by our consciousness? That's the main point of evolutionary psychology that Tallis so vehemently attacks. Yes, we do have a community of minds that builds a body of objective knowledge. But that lofty side of humankind is more than likely a by-product of an abstract mind that evolved to do something entirely different: serve our survival goals. And despite Tallis's criticism of hard core evolutionary biology - and many of his points seem valid enough - this is, really, evolutionary biology's central point.

Tallis argues that evolutionary biology degrades our humanity in other ways as well. His picture of evolution is that of a "war of all against all" and selfish desire run rampant. Clearly we love, we express sympathy and compassion, and we cooperate with each other for the common good. Are these the simple choices of a collective humanitarian consciousness as Tallis would have us believe or do they come from our biology? Evolutionary theory might have a thing to say about how these other-oriented traits evolved, beyond kin selection.

Tallis also states that we do things deliberately rather than go through life reacting, as animals do, in a ping-pong fashion. That's an interesting take on animals, but this is not how much of evolutionary psychology accounts for human behavior. Our capacity for abstraction is also part of our evolutionary history and that capacity gives us the ability to choose one course over another, informed by not what's inside, but what's outside, based on information that has a direct bearing on our survival. The ends of behavior are related to survival and well being, but how we satisfy those ends depends on our ability to perceive the world objectively. We have fixed ends, but we are free to choose how we achieve those ends. Rather than degrading, what's not cool about that?

Like some of the neuroscientists that he criticizes, Tallis pushes human "exceptionalism". As with the question of whether a glass is half full or half empty, we can choose to say we are more animal than human or vice versa. The problem with leaving our animality behind, though, is the attitude that underlies it. Why do we need "exceptionalism" to refer to ourselves? Why can't we see ourselves as a life form like another other life form? Each has an exceptional quality. In a way, this is the essential meaning of a species. Our special trait is our conscious mind, but why give the "rah rah" to one species and not the others? Why can we not celebrate that all life seeks to live and that we, like animals, seek to be free not just of suffering, but to be free, period? To his credit, Tallis says he's against animal suffering, but he still calls them "beasts." The problem is when there's a conflict between beasts and humans, humans will always win. That's why we dominate now, and that's why we are likely creating the next great species extinction. That adds a new dimension to human exceptionalism.

There's good stuff in this book, but the language he uses gets in the way. Why the pejorative terminology? Why the put down comments about the arguments of others? Why not simply state one's point and simply state how one disagrees with their arguments.

Ade Bailey says

I actually finished this a week after getting it early last month. It's one of those books that I wrote lots of notes alongside and I haven't yet had time to do a collated review but I will do one later as I think it's an important book. Just a few points here. First, there is an awful lot I disagree with. That's fine. That's how it should be. That's what conversations produce, discussions, arguments. But the book itself is well written, well structured, fair and honest: it is often rhetorical, ironic, downright sarcastic and vituperative but it wears it well. The Launcelott Spratt bombastic tone is a bit annoying at times but also kind of endearing. The main thing is, Tallis has given us a swashbuckling demolition job on Neuromania and the horrendous drift towards identifying the mind with the brain. What's more, he shows clearly why this is not some arcane academic dispute but of central importance to our society and culture. I cannot think of a more fortuitous book to come my way after the despair induced by that dreadful *Master and His Emissary* by Iain McGilchrist. I have reviewed that book and am most concerned that my low rating of it is against the grain. Why, there are respectable people out there who think McGilchrist is 'erudite' because he has an average knowledge of art, literature and philosophy. Curiously, Mary Midgley has blurb on the back of McGilchrist's book praising it, and blurb on the back of Tallis's book praising that too - even though the latter refers to the former as representing the extremest form of Neuromania. That's philosophers for you. Anyway, I'll come back to this soon.

Tucker says

The classic philosophers' debate about mind goes like this: do we have nonphysical spirits/minds, or does mind have a purely physical basis? In favor of a nonphysical mind, one might point out that, even with today's best available technology, scientists are not yet able to correlate a person's every thought with a visual image of their brain activity. Since mind is "invisible" or cannot (yet) be pointed to as a visual image, and its origins are mysterious, therefore it must be "nonphysical". On the other hand, in favor of a physically-grounded mind, one might say that simply because science has not yet unraveled the exceedingly complex and delicate workings of the brain does not mean that the brain will prove insufficient to explain consciousness. Appealing to fanciful spirits will not answer these unanswered questions; it merely creates a silly fiction that looks like an answer. Furthermore, if mind is nonphysical, the very idea of nonphysicality generates some unanswerable questions, such as "How can a nonphysical spirit be located in a physical body?" and "How can a nonphysical spirit exchange information with its physical body?"

Aping Mankind caught my attention because I wanted to hear Raymond Tallis argue against the idea that consciousness is caused purely by physical attributes. In this day and age, are there any good scientifically-supported arguments for a nonphysical spirit? Would Tallis, an atheist and medical scientist, defend the idea of ghosts?

No, he doesn't, which left me bewildered and disappointed. In this book, Tallis bypasses the classic debate. He manages to argue at great length against the idea that consciousness is entirely grounded in the brain without giving adequate attention to the obvious follow-up question: "OK, but there's no ghosts, right?" If consciousness is *not* in the brain, where is it? He doesn't really explain, at least not in enough detail to satisfy someone who has just waded through his 361-page argument. He alludes to the "pre-modern" nature of belief in ghostly souls but he never explicitly, personally rejects this pre-modern belief nor does he present a clear alternative.

Toward the end, he devotes a few pages to explaining what he thinks is missing from our theory of consciousness. Our sense of self is based on linked ideas and shared culture, he says. Taking photographs of a single person's brain ignores the connections between people, the relationships that make us who we are.

Yes, indeed, our minds are shaped by interaction with other people. But what -- I must ask -- is the metaphysical nature of this interaction, this culture? Is culture, too, a ghost, a nonphysical stratum in which are suspended nonphysical souls? Or does culture, in addition to its behavioral and historical characteristics that are truly shared facts, instantiate itself in each individual's brain as a personal, evolving concept and thus is it as physically grounded as the rest of our ideas? If scientists knew how to fully "read" a living, thinking brain, could they, in principle, see culture in there, too, along with every other part of the personality? Why not?

Tallis is not principally arguing against the idea that mind is material. (At least, I don't think so--it's hard to tell.) That's a question I think he needed to address, but it's not what he focused on. As indicated in the book's subtitle, he's principally arguing against what he calls "neuromania" -- the idea that neuroscientist's photographs of brain activity can explain everything there is to know about human consciousness, including lofty, complex ideas like religion, art, and memory -- and "Darwinitis" -- the compulsive attribution of all human thought and behavior to whatever maximizes survival. The former is more central to his argument. I have never perceived "neuromania" as a special problem. While many people (myself included) believe that their most complex ideas and intense feelings are ultimately grounded in the physical brain, I don't know anyone who suffers the "neuromaniac" delusion that confuses a blurry, uninterpreted photograph of a brain with the subjective feeling of consciousness itself. As Tallis is a neuroscientist, perhaps he has indeed met people who suffer this delusion because they are neuroscientists invested in inflating the significance of their research methods, but if so it seems that neuromania afflicts mainly neuroscientists and not the general population. Maybe the book is best read as a cautionary tale for neuroscientists.

This book has many good qualities. Tallis is witty, well-read, and original. He has firmly held atheist beliefs but doesn't feel the need to remind the reader of it constantly, refreshingly preferring to engage the reader in a discussion of ideas rather than a duel of identities. He believes in evolution and doesn't waste time defending it in this book, presuming that his reader can appreciate a philosophical discussion that assumes twenty-first century science. Nor is he anti-religion. The book even won a blurb of praise from Roger Scruton, a philosopher who has defended the role of religion in public life. Tallis recognizes that religious beliefs contain meaning that is important for anyone studying human consciousness, and he's not averse to the sparse use of the word "spirituality" to describe a certain human need when no other word will do. He has written some delightful passages on what he calls "Thatter," the tendency of humans to use language to represent things as "facts that..." which another book I'm simultaneously reading has termed "metarepresentation."

My frustration with *Aping Mankind* is just that it elided the question of consciousness-as-ghost consistently throughout many densely written pages through which I spent an inordinate number of hours searching for what I was hoping it would say. This book may be very useful to someone writing a philosophy thesis on the topic of mind, as there are many excellently expressed original ideas, but I wouldn't recommend this as an introductory text because for me it hopped over some of the central issues.
