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Self-Defeat, Inconsistency, and the Debunking of Science

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How History Gets Things Wrong: The Neuroscience of Our Addiction to Stories

Alex Rosenberg
MIT Press, 2018
289 pp.

Alexander Rosenberg's newest book, *How History Gets Things Wrong. The Neuroscience of Our Addiction to Stories*, is a frustrating read. After presenting an overview of the book, I explain why. I end by suggesting a more promising route.

Rosenberg's Book in Overview

Rosenberg aims to deal with “narrative history”, which is his term for historical narratives that are offered as explanations of individual human actions, and where the explanations consist of references to the beliefs and desires of the person at hand. So, if the explanandum is Hitler's declaring war on the United States, or Kaiser Wilhelm's decision to go to war (thus starting what we now call World War I), or Talleyrand's many devious diplomatic machinations across a fifty-year time-span, then the narrative historian's explanans, says Rosenberg, is (or is found in) the beliefs and desires of Hitler, Kaiser Wilhelm, and Talleyrand respectively. The central message of the book is trumpeted loudly and repeatedly: all these explanations are entirely wrong.

The reason Rosenberg thinks such explanations are entirely wrong is that Hitler, Kaiser Wilhelm, and Talleyrand *just did not have* beliefs and desires. And they did not have them, because beliefs and desires *don't exist*. Here is how Rosenberg states his view:

Narrative history is not verifiable because it attributes causal responsibility for the historical record to factors inaccessible to the historian. And they're inaccessible because they don't exist. The causal factors narrative history invokes—the contentful beliefs and desires that are supposed to drive human actions—have all the reality of phlogiston or epicycles (247).

Notice that Rosenberg's claim is not merely that Hitler's, Kaiser Wilhelm's and Talleyrand's actions cannot be *fully* explained by reference to their beliefs and desires (which would be a plausible position, as there seem to be other factors besides beliefs and desires that account for their actions, such as cultural backgrounds, physical appearances, linguistic and social skills, intelligence etc.), but not even in any small part.

The idea that beliefs and desires can, at least to some degree, help explain individual human actions is part of what Rosenberg calls a Theory of Mind, also called Folk Psychology. It consists of platitudes that we mostly don't bother to state explicitly, such as that

- People have beliefs, thoughts, expectations.
- People have desires, wants, preferences, hopes, antipathies, fears, dislikes.

- People have sensations—they experience colors, smells, tastes, textures, pains and pleasures—which shape their beliefs.
- People have emotions—shame, guilt, anger, disgust, happiness, sadness—which shape their desires.
- People act on their beliefs about the world in order to attain their desires (36).

The Theory of Mind, Rosenberg says, is completely false. How does he know this? He thinks he knows this because neuroscience tells him so, or more precisely: he thinks he knows this because he thinks that a couple of Nobel Prize winners—Eric Kandel, John O’Keefe, May-Britt Moser and Edvard Moser—tell him so much. What he hears them telling is that what truly drove, for example, Talleyrand’s behaviour is not his beliefs and desires (for he had none, could have none, since they don’t exist), but something completely different. “The real inside story”, he says,

is that there was no inside story. Just a lot of unexciting firing of a lot of neural circuits, going back, from the moment Talleyrand broached treason with the Austrian ambassador, through decades and scores of years of classical and operant conditioning of the neural circuits in Talleyrand’s brain. Standing there in whatever palace he found himself, firings in his hippocampus were sending sharp wave ripples out across his neocortex, where they stimulated one neural circuit after another, until combined with firings from the prefrontal cortex and ventral striatum, and doubtless half a dozen or more other regions in Talleyrand’s brain, causing his throat, tongue, and lips to move and him to speak. No narrative to report here—just one damn electrochemical process after another (160).

The precise point that Rosenberg hears the Nobel Prize winners making, is that neural circuits in the brain *don’t represent* anything, they are *not about* anything, they have *no content* (131). The point seems to be that neural circuits just are not the sort of things that are capable of *representing* the fact that Paris is the capital of France, not the sort of things that can be *about* Paris, not the sort of things that can have as their *content* wishing to go to Paris, while on the Theory of Mind beliefs and desires *are* representations, *are* about things, and *are* contents (of the mind). If neural circuits don’t and can’t have contents, this also means they don’t and can’t have or be or contain purposes. Here Rosenberg tells the story that where Newton banished purposes from physics, Darwin banished it from biology, and the Nobel Prize winners banished it from neuroscience (206).

How did humans come to accept the Theory of Mind? Here Rosenberg recounts the evolutionary story that the Theory of Mind was selected for in hominids because it solved the problems of trust as well as of cooperation—problems that needed to be solved for survival (chapter 4). The Theory worked wonderfully well, as the ubiquitous presence of humans on the planet illustrates. Yet it is completely false. Or so Rosenberg avers.

Nevertheless, he acknowledges, the Theory of Mind is so deeply engrained in our psyches, that we cannot shake it off.

It is somewhat unclear of what genre this book is. It is most certainly not a philosophical book intended for a philosophical readership. The view about belief that Rosenberg propounds is in philosophical circles of course known as eliminativism, but the label is not used, it doesn't appear in the Index, nor is there any reference to the many discussions that the position has evoked ever since Paul and Patricia Churchland did much to put the view on the philosophical agenda.¹ Also, rather obvious philosophical alternatives to eliminativism are either only mentioned and not discussed. Dualism, for example, is mentioned on page 117, but dismissed out of hand, no mind the arguments of its defenders that are explicitly based on the claim that Rosenberg so valiantly defends, viz. that neural circuits cannot have content.² Relevant alternatives that are not even mentioned include emergentism, panpsychism, and idealism.³ The book contains no philosophical analyses of the key-notions that are used, such as “story”, “understanding”, and “explanation”.⁴ It contains no philosophically interesting, let alone plausible, argument for eliminativism. It contains the assertion that the only way that the Theory of Mind could be shown to be correct, is through neuroscience (114-115), but no argument.

Nor is the book a work of science. It refers to quite a few science papers, but doesn't contribute itself anything to the science of evolution, to neuroscience, or any other science. Science, Rosenberg says, “is not stories; it's theories, laws, models, findings, observations, experiments.” Well, he certainly doesn't give us any of these latter things—although he *summarizes* findings, observations and experiments of the Nobel Prize laureates.

Perhaps the best label to put on the book is that it is “science writing”, although Rosenberg isn't keen on that genre himself. He is critical of such books as Stephen Hawking's *A Brief History of Time*, and Bill Bryson's *A Short History of Nearly Everything* because these works narrate the history of breakthroughs or the biographies of the scientists who achieved them, but readers remember only the stories but forget the science. But Rosenberg's science writing isn't merely *reporting* the research of scientists, it is an *opiniated appropriation* of the research of scientists. It is a form of what has been called “customized” science; roughly,

¹ No reference to and no discussion of the objections raised for the view by Baker 1987 and Boghossian 1990, 1991.

² Rosenberg 2018, 114. Defenders of dualism include Richard Fumerton, Dean Zimmerman, Jonathan Lowe, Richard Swinburne, and Alvin Plantinga. Rosenberg doesn't distinguish between various forms of dualism either.

³ Friends of emergentism include Tim O' Connor, friends of panpsychism Thomas Nagel and David Chalmers, and friends of idealism Robert Adams and Timothy Sprigge. (Note that to be a friend is not the same as to be a defender.)

⁴ There is a problem about what Rosenberg takes a story to be. In section 1 I ascribed to him the more specific view that a story is an explanation of an individual human's behaviour by reference to that person's beliefs and desires. But occasionally Rosenberg seems to use a much more capacious notion of a story: it is just the narration of a sequence of events. In this more capacious sense Rosenberg's book is full of stories, for instance when he narrates in chapter 5 how evolution selected for the Theory of Mind, and in chapters 8 and 10 how the Nobel Prize winners went about in their research.

science reporting cut to a certain view of the world, while at the same time suggesting that that view is no more than an entailment of science—in Rosenberg’s case, cut to an extreme naturalist or physicalist world view, suggesting that that view is no more than an entailment of scientific findings.⁵

Why the Book is Frustrating

This book, I said, is frustrating. Each of the following sections details a reason why. In one way or another they all have to do with inconsistency, incoherence, self-defeat and lack of philosophical reflection in general.

Rosenberg’s Self-Defeat

The crux of Rosenberg’s argument against the explanatory potency of narrative history is that beliefs and desires don’t exist.

If beliefs and desires don’t exist, then Rosenberg can’t have them, of course. Yet in his book Rosenberg expresses many beliefs and desires. The book expresses, for instance, his belief that narrative history gets things completely wrong, that the Theory of Mind is selected for in the biological evolution, and that neural circuits don’t have content. It also expresses his belief that beliefs don’t exist. Let us call this the belief paradox. Rosenberg also expresses many desires in his book, such as the desire that we not succumb to the temptations of narrative history. He desires that we no longer believe desires exist. Let us call this the desire paradox. The paradoxes can be understood in various ways:

- Rosenberg denies the existence of beliefs and desires, yet his book expresses many of his beliefs and desires. Understood this way, Rosenberg’s predicament parallels fully clad Fanny’s predicament when she *says* she is naked.
- Rosenberg denies the existence of things that can only be denied if it is presupposed they do exist: he denies that beliefs exist, but he can only do that when he *believes* that beliefs don’t exist. Understood this way, Rosenberg’s predicament parallels the predicament of the person who denies that truths exist.

What is frustrating about Rosenberg’s book is that he nowhere even *mentions* the problem of paradox.⁶ This may mean one of three things:

1. The paradoxes have escaped Rosenberg’s notice.

⁵ See for a discussion of this notion Fuller et al 2014.

⁶ The problem of paradox must either have occurred, or been pointed out to him many times. One needn’t be operating on a Nobel Prize level to spot them (which is not to say that it is easy to state them adequately.) As a matter of fact, many authors have argued that eliminative materialism is in some sense self-refuting, for example Baker 1987, and Boghossian 1990 and 1991.

2. The paradoxes have not escaped Rosenberg's notice, but he is intellectually lazy and didn't want to deal with them.

3. The paradoxes have not escaped him, but he doesn't think they are a problem although he doesn't care to explain why he thinks so.

Charity requires that options 1 and 2 not be taken seriously, and independent evidence (just reading a couple of his books should suffice) confirms that Rosenberg is both intelligent and diligent. So we are stuck with option 3, the paradoxes are not a problem for him, although he doesn't care to reveal why he thinks so. Now I can envision two things he might tell us to explain why the paradoxes are no problem for him. He might tell us, first,

There is no alternative for me but to *think* with the learned (the neuroscientists) yet to *speak* with the vulgar. It is inevitable to speak with the vulgar, for that is the only speak we have, but it means, alas, speaking Theory of Mind talk. Yet thinking with the learned means to deny the very existence of beliefs and desires. This is not a genuine paradox, or a serious problem, only a small inconvenience, it amounts to only a little bit of a tension between speaking and thinking. For I can consistently think that beliefs and desires are non-existent—in fact, I don't believe that *I myself* have beliefs and desires. (And please note that this is not the same as saying that I believe I myself don't have beliefs and desires.) It is only that when I want to *express* these thoughts in writing or speaking that I have to avail myself of a language that is saturated with Theory of Mind concepts. That's all.

But this is wholly unconvincing. For thinking with the learned is still *thinking*—and thinking has *content*, is *about* something or other, in the case of Rosenberg it is thinking about evolution, neuroscience, Theory of Mind, Narrative history, and many things more.

Is, perhaps, the following a speech that he could make? Couldn't he say

In order to get where I want to be, I have to climb a Wittgensteinian ladder. I climb the ladder of ordinary speech, so use the language that is saturated with Theory of Mind notions. But when I am “up there”, so when I say that beliefs and desires don't exist, I have, in the very act of saying it, kicked the ladder away. My position “up there” after I have kicked the ladder away, is characterized by the absence of belief and the absence of desire, as well as by the absence of belief in the existence of beliefs and desires. For there are no such things. I myself don't have beliefs, nor desires. What there is, is contentless neural circuits.

But this speech is not convincing either. For from the action of writing the book, we must conclude that Rosenberg does indeed have what he denies that exists: beliefs and desires. There is lots of content, if not in his neural circuits, then surely in his mind. In his mind

there are things, usually called desires and beliefs, that are absent in sticks and stones, in oceans and skies. And it is these contents that he wants his readers to take note of.

Science Undermined

Rosenberg writes that there are compelling reasons to question the Theory of Mind. His discussion of those reasons is prefaced by the statement that the Theory's "Darwinian pedigree is no reason to accept it as true, or even mostly true. The process of natural selection does not as a rule produce true beliefs, just ones that foster survival" (82).⁷ The statement that natural selection does not as a rule produce true beliefs, cannot, of course, be confined to the Theory of Mind—it isn't only Theory of Mind related beliefs that cannot be held to be true due to their Darwinian pedigree. It holds across the board, so for *all* beliefs. If it is to be consistent, Rosenberg's view must be that natural selection *in general* selects not for truth but for survival.

What is frustrating is that Rosenberg's book nowhere discusses the implications of this view for Darwinism itself, nor for science more generally. For the implications are monumental and disastrous. For if the mental faculties or mechanisms that produce belief in us are selected for not because they yield mostly true beliefs but because they foster survival, then this also regards science: whatever we wind up believing through science, whatever scientific theory we accept through scientific investigation, the fact that we believe it has to do with survival, not truth. But this means that given Rosenberg's view on natural selection, we have no reason to think that our scientific theories are true, in fact we have a standing defeater for each and every scientific theory, evolutionary theory and the theory of natural selection included.

In the wake of Alvin Plantinga's evolutionary argument against naturalism, this problem has received quite a bit of attention.⁸ But Rosenberg doesn't engage with the literature, and has nothing of any interest to say on a problem that should exercise him greatly, given his over allegiance to scientism, roughly the claim that only science can give us knowledge.⁹

⁷ I note that in the earlier stages of his book, which this quotation is lifted from, Rosenberg uses belief-talk liberally. Looking back at the quotation with the later adopted eliminativism in mind, causes something of an intellectual vertigo: the quotation says unqualifiedly that natural selection does not as a rule produce true belief. If beliefs don't exist, this means that natural selection produces things that don't exist, which is vertigo-inducing nonsense.

⁸ For a statement of Plantinga's argument as well as a number of responses to it, see Beilby 2002, and Plantinga and Tooley 2008. Plantinga's argument is not a lone wolf, but stands in a veritable tradition that has been unearthed in Slagle 2016. The shortest argument against a Rosenberg kind of view that I know of was presented by the eminent (perhaps I should add, atheist) scientist J.B.S. Haldane with the following words: "If my mental processes are determined by wholly by the motions of atoms in my brain I have no reason to suppose that my beliefs are true. They may be sound chemically, but that does not make them sound logically. And hence I have no reason for supposing my brain to be composed of atoms." (Haldane 1929, 209)

⁹ See Rosenberg 2011. For a critique of his scientism see Van Woudenberg 2018.

Give Up and Not Give Up the Theory of Mind?

As indicated, Rosenberg holds that the Theory of Mind is entirely wrong, it refers to items that just don't exist, and hence trying to understand or explain human actions in terms of beliefs and desires is completely misguided, wrong, false. That is what he says (184). But he *also* says that the Theory works well in everyday affairs, that "its predictions about people's movements and actions in our immediate vicinity over the next few minutes and hours are fairly good, as are some of its longer-range predictions, especially about what normal people won't do" (184). And he continues that "the conclusion we have been driven to (i.e. that beliefs and desires don't exist, RvW) doesn't really require us to give up the theory of mind most of the time. It only requires us to stop taking narrative histories seriously ... only that we give up believing the explanations of narrative history" (184).

So, the very same alleged fact that Rosenberg claims should stop us to take narrative history seriously, namely the non-existence of beliefs and desires, should *not* stop us to ascribe beliefs and desires to humans in our everyday affairs.

This combination of ideas is frustrating for two reasons. First, it is left entirely unmotivated why the Theory of Mind *cannot* be applied in narrative history, but *can* be applied in everyday affairs. Second, Rosenberg says all these things *explicitly*. The arbitrariness or inconsistency stares him right in the face. Yet he doesn't do anything to resolve the tension they create. Is this blindness, laziness? That is, again, uncharitable.

Can it then perhaps be that he desires not to be consistent? This cannot be, for one of two reasons. One is that he doesn't have desires at all, and *a fortiori* no desire to not be consistent. The second is that, inconsistently, he *does* care about consistency. He accuses Darwin of a cop-out because he ended the *Origin of Species* with the words "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms of life or into one." This, Rosenberg believes, is a cop-out as the *Origin of Species* is "perhaps the most powerful argument ever crafted for the effective absence of God from the workings of evolution" (240). Rosenberg avers that Darwin wrote this "in an attempt to avoid further controversy" (240). But this statement is inconsistent with most of the rest of what Rosenberg says, of course. For, on Rosenberg's eliminativism, Darwin, like everybody else, had no beliefs and desires, not even the desire to avoid controversy or the belief that he could avoid it by writing that "the Creator breathed powers into a few forms of life, or into one."

Academic History Salvaged?

I noted that Rosenberg's official target is narrative history, which aims to explain individual human actions. Such explanations are "inevitably wrong" (3). They are wrong for the reasons that I have mentioned more than enough now: they refer to beliefs and desires that don't exist. Now Rosenberg announces that what he targets is not "academic history". Academic historians, he concedes, "are perfectly capable of establishing actual, accurate, true chronologies and other facts that happened in the past. They aren't wrong about feudalism

coming before the Reformation.” He even concedes that “the approaches to the past that many professors of history employ can provide powerful new and better explanations of well-known historical events and processes, often by identifying causes previously unknown or ignored” (2).

So, Rosenberg says in effect that he wants to salvage academic history. But how is that possible given his view that neural circuits do not and cannot have content, and hence that beliefs and desires are non-existent. Rosenberg in effect tells us that he believes (I pass-by the self-defeating nature of this—it was addressed in section II, 1) academic historians when they tell him that feudalism preceded the Reformation. Now the historians that tell him so much, must have transmitted *content* to him, in this case the content that feudalism preceded the Reformation. But how *can* these historians have transmitted that content to him if there *is* no content—or at least, if the neural circuits in the brains of the historian contain no content, if they are not *about* anything, so neither about feudalism, nor about the Reformation, nor about the temporal relations between the two?

Again, the problem is easy to see. Yet it is not made explicit, let alone seriously discussed.

Historical Predictions

Rosenberg chides historians for not being able to resolve disagreements over competing explanations of the same historical facts and events—such as the causes of World War I. In science, he says, disagreements over which explanation is right can be resolved by extracting predictions from the explanations, they can wield the standard of predictive success, which cannot be done in history (25). And although many historians disown the demand for predictive power as unreasonable and as being a misunderstanding of what history is all about, Rosenberg thinks that the lack of predictive success counts against the work of historians, academic historians included.¹⁰

Now Rosenberg hails Jared Diamond’s 1997 *Guns, Germs, and Steel*, in which Diamond aims to explain why wealth and power became distributed as they are now and not in some other way (why weren’t the Native Americans the ones who decimated, subjugated, or exterminated Europeans and Asians?) as a specimen of excellent historical work. I won’t try to summarize the details of Jared’s explanation, but the general explanatory structure is natural selection working on factors other than genes. Rosenberg avers that “natural selection is the real driver in world history over millennia, continental history over centuries, national history over decades, and local history of years ... The driving force of history is this Darwinian process operating through human culture” (229).

Here frustration is wreaked by wielding a double standard: traditional historical explanations are chided because they lack predictive power, while Darwinian explanations are hailed even though they lack predictive power. For it is of the essence of Darwinian explanations that they are backward looking. The point is easy to see, but it goes unnoticed and undiscussed.

¹⁰ A very good discussion of the epistemic gains that the study of history can give us, is Grimm 2017.

The Way Out

Rosenberg's book, then, illustrates what can happen when one doesn't really reflect on the foundations of what one is thinking and claiming. More specifically, Rosenberg's book illustrates what can happen when one takes the natural sciences to be the *sole* source of evidence for one's beliefs and opinions: one gets ensnared in self-defeat, one gets a standing defeater for science itself, and one is no longer able to understand oneself or others.

The way out, to my mind, is to:

1. Read Rosenberg's book as one long *reductio ad absurdum* of the view espoused, notably of eliminativism;
2. Accept as plain common sense the Theory of Mind that Rosenberg says we are psychologically unable to throw of, so accept that beliefs and desires are real and guide, to some extent, human behaviour;¹¹
3. Develop a metaphysics in which belief and desire contents can have a proper place;
4. Develop an epistemology that acknowledges multiple sources of belief: perception, reason, self-consciousness (or reflection), testimony and reading, moral sense and more—and this will be an epistemology that can salvage science, as science is the long arm of common sense (while scientism is not).

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¹¹ The question whether common sense is defeated is the topic of Peels, De Ridder and Van Woudenberg 2020. On the nature and epistemological status of common sense see also Peels and Van Woudenberg 2021.

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