

# The Evolutionary Basis of Self-Deception

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*NOTE: This paper is an exploration of the possibility that natural selection could prefer non-truth tropic cognitive faculties and that the systematic generation of false beliefs should not be understood as pathological in the clinical sense. Self-deception is a case study of such a phenomenon. My larger project is to undermine arguments for the evolution of rationality: it's not clear that evolution by natural selection can support the kind of claim that epistemologists need it to support (viz., that Darwinian selection guarantees, or makes it likely, that human cognitive faculties are reliable with respect to generating true beliefs). While it might be true, empirically, that human cognitive faculties generate mostly true beliefs, this claim does not enjoy evidential support from the fact that human cognitive faculties are the result of evolutionary processes. (For further details, please see my "Two Senses of "Reliability" in Evolutionary Epistemology")*

## Abstract

Despite its widespread occurrence, self-deception is classified as a form of psychopathology. Because self-deception regularly generates false beliefs, this figures prominently among the motivations for designating self-deception as a form of pathology or malfunction. I argue that this is a poor reason to classify self-deception as a form of psychopathology. From an evolutionary, Darwinian point of view, we are not justified in concluding that self-deception is pathological. In particular, we are not justified in concluding that the cognitive processes of self-deceivers are malfunctioning. Despite a long philosophical tradition to the contrary, I conclude that self-deception may be indicative of a normally functioning, evolved human mind.

## A. Introduction

We should not be so quick as to conclude that everyday forms of false belief generation, such as self-deception, are pathological. I claim that self-deception may be characteristic of a normally functioning, evolved human mind. As such, self-deception should be understood as an adaptive cognitive strategy grounded in the evolutionary, biological, and psychological development of *normal*

human beings. While some cases of self-deception are obviously *maladaptive* (much like some false beliefs are maladaptive on some scale), self-deception can be viewed as an adaptive strategy with empirical support found in evolutionary biology and neurophysiology. In the end, I want to suggest that a little self-deception goes a long way, evolutionarily speaking.

At first glance, the words “self-deception” suggest instances where cognitive agents knowingly embrace falsehoods or formulate beliefs with a disregard for evidence. To this extent, self-deceivers are thought to be irrational or delusional. In short, we tend to view self-deception as a pathological condition that is a disruption of *normal* belief-forming processes. “Normal,” that is, from the analytic philosopher’s point of view, where the central important epistemic goal seems to be the generation of true beliefs.

However, I suggest that the specifics of just *what* self-deception is and *when* (and *how* often) it occurs will alter our conception of the sense of “impairment” attached to it. If self-deception is rare, then our perception of self-deception becomes even more pathological. If self-deception is an everyday occurrence, then we will not view it as a disorder. Notice, however, that this is a claim about our psychology – about our *appraisal* of self-deceivers – a claim about how mental disorders are classified and a reflection of what counts as a “disease”. In other words, if self-deception is a kind of “cognitive biasing” and it is fairly common, and it is not the result of any cognitive malfunction, then we should not treat garden-variety forms of self-deception as pathological.

That covers the *what*, *when*, and *how often* dimensions of self-deception. Another approach is to understand the “why” of self-deception. But to understand this, we need to understand the “why” of belief generation itself. And to do this, we must understand the human mind from an evolutionary perspective. What I want to suggest is that a little self-deception is part of the normal, evolutionary functioning of the human mind. However, my experience has been that philosophers, among others, tend to resist this suggestion. Philosophers get a little nervous when someone says that false belief generation is perfectly normal. And soon, thoughts of the Evil Genius or Brains In Vats begin to fill our minds, and, surely, Descartes must be rolling in his grave!

But such agitation can be avoided so long as we understand the mind from an evolutionary point of view. What I hope to show (or provide some reasons for accepting) is that we needn’t feel so threatened by the insight that evolution may have provided us with cognitive faculties that don’t

always get at the truth, and – importantly – we need to understand that failing to get at the truth is not always a case of malfunction or pathology, especially from an evolutionary point of view. As such, generating falsehoods might well be the consequence of a normally functioning, evolved, human mind.

Several recent theories of self-deception have come from philosophers, including Alfred Mele, Dana Nelkin, William Talbott, and William Whisner. Non-philosophers have contributed to this topic as well. Neurophysiologist V.S. Ramachandran, and evolutionary biologist Robert Trivers, each offers a biological account of self-deception. In what follows, I provide a brief summary of several *philosophical* and *biological* theories of self-deception.

## B. Philosophical Theories of Self-Deception: Two Puzzles

Most philosophical theories of self-deception treat self-deception as a special case of deception. Standard cases of deception include a description as follows: agent A deceives agent B with respect to some proposition  $p$ , just in case A intentionally causes B to believe  $p$ , yet A believes  $\sim p$  and it turns out that  $p$  is in fact false (Mele 1997, 2000). What makes self-deception a special case of deception is that A and B are the same agent.

Two puzzles immediately arise with respect to this basic approach. The first puzzle arises when a single agent must believe both  $p$  and  $\sim p$  at the same time. This is thought, by philosophers, to be logically incoherent and psychologically impossible. A second puzzle regards how an agent can intentionally deceive him- or herself. Part of a successful (two-person) deception requires that A's intention remain *hidden* from B. Once B realizes that A has deceptive intentions, this undermines the deception attempt. In the case of self-deception, A and B are the same agent (presumably with access to the same intentions), so no successful deception could ever take place. Any attempt by A to deceive B will be undermined simply because A and B are the same person.

How are these puzzles to be solved?

One solution has been to revise the “psychological unity” of self that is presumed by both puzzles. What is needed is an account that allows true and false information to be stored in a single agent ( $p$  and  $\sim p$ ), and that the false information is stored in, and reported by, the conscious mind, for example, while the true information remains unconscious. What is also needed is that conflicting intentions coexist

within a single agent, and for the conflict to remain undetected. The revision I have in mind challenges the view that our minds are perfectly unified, as well as the view that our intentions and desires are introspectively transparent. (I.e., when we introspect, we see all the intentions there are to see – that our first-person accounts of what we believe or intend are exhaustive and authoritative).

The roots of the modern rejection of reliable, first-person access to our mental lives can be found in the work of Anna and Sigmund Freud, especially their distinction between the conscious and unconscious mind (A. Freud 1946; S. Freud 1997). Their work in developing a taxonomy of the various psychological coping strategies (such as repression, denial, and confabulation) routinely relies on this split between our conscious selves and the unconscious mind. What I want to suggest is that this Freudian tradition gains support from the *evolutionary* study of mind (even though these areas may seem to be uneasy bedfellows). By exploring the work of evolutionary biologists and neurophysiologists, we can begin to see the plausibility of this split between the conscious and unconscious, and thus how to resolve the two puzzles mentioned above.

Gur and Sackeim (1979) report that we exhibit a distinct physiological response when we hear a familiar voice. Using a measurement technique known as galvanic skin response (GSR), researchers discovered that our skin responds more intensely when we hear a voice that is familiar, especially our own voice. When perfectly normal subjects were asked to identify their *own* voice, their verbal reports were *less reliable* than GSR measurements. Verbally, some failed to acknowledge their own voice; some claimed ownership of somebody else's voice. As Trivers reports, "In almost all cases, the skin knew better" (1985, 417). So, while the conscious (verbal) mind reports a falsehood, our physiological systems tend to "report" the truth. What is even more interesting is that the errors made by the subjects showed a predictable pattern: when subjects had failed a recorded verbal task, they were more likely to *deny* their own voice during playback; when the voice they heard was successful, subjects were more likely to claim ownership of the voice, even when it was *not* their voice. Yet, the skin "knew better" despite the verbal report provided by these normal human subjects.

Additional empirical support for the conscious/unconscious split comes from the study of prosopagnosia, an adult-onset neurological disorder in which patients lose their ability to recognize faces, including those faces of close relatives (Gaulin and McBurney 2001, 25). In severe cases, they fail to recognize themselves in a mirror! Still, the skin knows better: when those suffering from this disorder are shown a series of faces, they report no recognition of what should be "familiar" faces. But

when researchers measure GSR, there is a “spike” whenever a face of a close relative or friend (or even a photo of the patient him- or herself) is displayed. Yet, patients find nothing familiar about the faces, and they are, for the most part, completely unaware of their own GSR. So, some unconscious system is accurately recording and manifesting “true” responses, while the conscious mind is completely in the dark.

One final example comes from a phenomenon known as “blindsight” (Ramachandran 1998, 74; Weiskrantz 1986). Experiments were conducted which required patients who were visually impaired to guess, grab, or point to objects that they reportedly could *not* see. One totally blind patient was asked to “guess” about the location of an object placed randomly in front of him. After a long series of “guesses” the patient had made few errors, yet reported that he could see nothing at all, and reported little confidence that any of his guesses were accurate. Another experiment was conducted on patients who could see nothing in their left visual field (for example, these are patients who neglect all the food on one side of their plates). These patients were found to routinely flinch or duck uncontrollably if an object approached quickly from their left. Despite having no conscious (visual) awareness of the presence of any moving object, nor reporting (verbally) that such an object was approaching, patients (or their bodies anyway) still reacted so as to avoid the approaching object!

These experimental results seem to suggest a split between the conscious mind and what is in fact “stored” (in one way or another) in a person (taken as a physiological whole). Together with the Freudian split between the conscious and unconscious mind, these empirical examples help support the revision of the view that our mental lives are psychologically unified and introspectively transparent: as a physiological whole, we are simply unaware of everything that is going on. As we will see, this basic Freudian split between the conscious and unconscious is crucial for biological theories of self-deception, a topic to which I now turn.

### C. Biological Theories of Self-Deception

The two biological theories of self-deception I discuss require this split between the conscious and unconscious mind. One biological theory of self-deception is offered by evolutionary biologist Robert Trivers (1985, 2000). Trivers maintains that by hiding the truth from the conscious mind, we are able to better hide the truth from others. It is commonly known that humans display a wide variety of

behavioral cues when we attempt to lie to or deceive others (facial expressions, body language, eye movement, intonation, etc.). However, if we are self-deceived (and we honestly, to our conscious mind, believe what we say to be the truth), then we might be able to get away with lying without the tell-tale (and seemingly uncontrollable) signs of deception. Trivers writes, “Self-deception renders the deception being practiced unconscious to the practitioner, thereby hiding from other individuals the subtle signs of self-knowledge that may give away the deception being practiced” (1985, 395). This kind of deception is analogous to the deception found in camouflage, but in this case, self-deception is a cognitive mechanism that enhances our ability to deceive others – a kind of “cognitive camouflage.”

Primatologist Franz DeWaal provides an example from chimpanzees where one male is seen hiding his fear from another (dominant) male. Even when frightened, chimps will clench their lips, showing their teeth. Often, this is a cue to other chimps – detecting fear may in fact initiate an attack from a dominant chimp. DeWaal reports seeing younger (non-dominant) chimps placing their hands over their (uncontrollably) revealed teeth, presumably in an attempt to deceive the dominant chimp. Now, if he could hide that same fear from himself (by being over-confident, for example), then there would be no need to cover his mouths with his hands. This kind of cognitive camouflage may run very deep. And the kind of systematic over-appraisals just mentioned suggest that this cognitive camouflage may be widespread. So, self-deception is a kind of strategy which allows us to better deceive others by first deceiving ourselves.

The second biological theory of self-deception comes from neurophysiologist V. S. Ramachandran (1996, 1998). Using a specific example of self-deception, known as anosognosia, Ramachandran claims that self-deception requires hemispheric specialization. He found that patients who suffer right hemisphere strokes consistently deny the paralysis afflicting the left side of their bodies. However, patients who suffer from left hemisphere strokes rarely deny their right-side paralysis. Why? Well, very quickly, Ramachandran hypothesizes that the left hemisphere forms a model of how things are (both in the world and with respect to one’s self and one’s abilities) and it dogmatically sticks to this model (in terms of energy expenditure, it’s costly to continually revise our model of the world... better to stick with something stable despite a bit of evidence to the contrary). The right hemisphere detects anomalies and, when the evidence is overwhelming, it forces the left hemisphere to revise the model (a gestalt switch similar to a “paradigm shift” in scientific models). However, patients who experience right hemisphere strokes stick to the “business as usual” model: a shift in the model, such as accepting one’s drastic limitations, is avoided entirely, despite a preponderance of evidence... enough evidence

that would normally cause a gestalt switch. The self-deception associated with anosognosia is particularly strong because the hemisphere responsible for forcing changes to the model, the right hemisphere, has been damaged.

Ramachandran reports that patients will generate wildly imaginative stories in order to preserve this model, despite overwhelming evidence to the contrary. When one right-hemisphere stroke patient was asked to move her left arm, she denied that it was *her* arm (she claimed that it was her *brother's* arm, despite acknowledging that it was in fact connected to *her* shoulder!). Another patient, when asked whether she could move her (paralyzed) left arm, replied confidently that she could indeed move her arm. And when asked to point at Dr. Ramachandran's nose with her paralyzed left arm, she boldly claimed that she was in fact pointing directly at his nose (yet she was not). When asked to perform a routine two-handed task (such as tying shoe laces) patients would struggle for many minutes attempting to perform the two-handed task with just one hand. In many cases, patients who denied their paralysis would also deny their failures: when asked later (by an intern) whether the patient had completed the two-handed task successfully, patients would report (falsely) that they had succeeded. None of this self-deception (the denials, confabulations, the suppressing) was ever reported in left-hemisphere stroke patients.

Ramachandran suggests that the left-hemisphere acts as a kind of Freudian coping mechanism – denying, suppressing, and confabulating in order to preserve the existing model – it, or rather, *we*, engage in self-deception in order to preserve the model. In most cases, the model in question includes basic beliefs that one's body still works just fine. So, self-deception is occurring even during normal functioning. In the case of stroke patients, the self-deception becomes even more extreme. The injury simply exacerbates the self-deception that routinely occurs and provides us with a clear example of the hemispheric specialization associated with this cognitive practice. Ramachandran's biological theory of self-deception requires a kind of "split" between what we are conscious of and what we are not. Moreover, there seems to be a neurological, hemispheric specialization for this cognitive strategy.

When combined with the insights offered by Trivers, biological theories of self-deception offer a novel approach that suggests that there is a long evolutionary history to self-deception – in the case of Trivers, self-deception occurs as a social intelligence strategy (perhaps part of a Machiavellian strategy). Ramachandran suggests that there is a neuro-physiological basis for self-deception in humans.

By making a distinction between the conscious and the unconscious, biological theories of self-deception avoid the difficulties presented by the two philosophical puzzles mentioned above. Biological theories also provide an answer to “why” questions completely ignored by philosophical theories: *Why* do humans engage in self-deception? Finally, such theories locate a biological component (reproductive fitness and hemispheric specialization) that may be responsible for self-deception.

Based on the above examples and the two biological theories of self-deception just presented, I think we have reason to suppose that self-deception may in fact occur regularly. Not only is this true of people suffering from strokes and other neurological disorders, it is also true of people who are functioning normally (recall the GSR response cases). What I take to be a central theme common to both biological accounts offered by Trivers and Ramachandran is that self-deception is characteristic of an evolved, normally functioning human mind.

For a glimpse of how widespread self-deception is in the general population, consider these findings, “A survey of university professors found that 94% thought they were better at their jobs than their average colleague... A survey of one million high school seniors found that ... *all* students thought they were above average [in their] ability to get along with others... and 25% thought they were in the top 1%” (Gilovich 1991, 77). Given these findings, if we still think that self-deception is the mark of an “impairment” then we must conclude that major subsets of the human population (including millions of high school seniors and the majority of university professors!) suffer from mental disorders and psychopathology. Clearly, the people surveyed are *not* pathological – they are generating beliefs according to cognitive strategies designed by natural selection.

So, lots of “normal” people engage in cognitive practices that systematically generate false beliefs and do so in a highly patterned way – we tend to consistently over-inflate appraisals of self-worth; we over-estimate our abilities; we suppress evidence that is emotionally troubling; we avoid responsibility and blame others for failed projects. We synthesize stories about our social and physical worlds, inventing facts and memories as needed in order to preserve a coherent account. Such an account is meaningful and useful, if not always strictly true.

In addition to this, existential psychotherapists, such as Irving Yalom, suggest that there are four areas of existential angst (Yalom refers to this as “existence pain”). First, there is the anxiety that is generated by recognizing the inevitability of death (for each of us as well as for those we love). The reality of death haunts many; most of us avoid the topic altogether (we do so by inventing convenient myths and comforting euphemisms). Second, anxiety occurs when we realize the ultimate freedom with which we live our lives. The realization that we are free to choose how our lives will unfold leads many to experience fear, dread, and forlornness. Third, existentialist angst appears when we realize the ultimate prospect of living our lives in isolation and being alone. In the vast expanse of the universe, we humans pop into existence and then simply die, and when we recognize this, we experience great amounts of anxiety as we come to realize that we are ultimately alone. Finally, we experience existence pain when we come to realize that life is devoid of any obvious meaning (this is part of “existence precedes essence”). The overwhelming prospect of attempting to find meaning in a meaningless world leads to great anxiety.

However, many religions of the world, as well as various new age doctrines, provide a remedy for each of these areas of anxiety. Some religions tell us a comforting story about the nature of death: popular stories include a transition to another world, heaven, where everything is wonderful—who would be afraid of death then? Many probably desire heaven so much that they view death as a mere obstacle to the good life. Some religions tell us a comforting story about our freedom: about how God granted us our freedom, but also how we will be forgiven for our sins and mistakes. This surely relieves the pressure of what would otherwise be a fantastically huge burden. Some religions tell us that we are not alone – that we have a personal relationship with God or that we have a personal savior. So, even in an impersonal world in which humans are isolated from other humans (or suffer greatly at the hands of humans), religion still offers a bit of personal contact. Finally, many religions provide a “meaning structure” that informs us of what we need to do in order to lead meaningful lives. And surely this relieves a great burden of figuring it out for ourselves.

All of these comforts provided by religious doctrine reduce stress and anxiety. And given that stress and anxiety are the main causes of today’s mortality, it seems reasonable to conclude that anything that reduces stress and anxiety will contribute to our biological well-being and reproductive fitness.

Now, let me return to a question I raised at the outset: Should self-deception be considered pathological? (at least in a clinical sense?) A Darwinian approach to cognition provides a principled way to assess psychopathology.

#### D. Evolutionary Approaches to Psychopathology

In a paper entitled, “Darwin in the Madhouse: Evolutionary Psychology and the Classification of Mental Disorders,” Dominic Murphy and Stephen Stich (2000) argue for an evolutionary account of psychopathology. If they are correct, then this provides further support for claiming that self-deception is not, technically or clinically, a mental disorder and should not be considered pathological.

The evolutionary psychology model of the mind is built around two main claims: the Massive Modularity Hypothesis and the Adaptation Hypothesis. The Massive Modularity Hypothesis maintains that the mind contains a large number of discrete (though connected) computational systems, usually called “modules” or “cognitive faculties”. These modules are specialized, domain-specific mechanisms that have access to and process information. The Adaptation Hypothesis maintains that these modules are adaptations that were, in the words of John Tooby and Leda Cosmides, “invented by natural selection during [human] evolutionary history to produce adaptive ends in [our] natural environment” (Tooby and Cosmides 1995, xiii).

Murphy and Stich call these modules “Darwinian Modules”. In addition to the Massive Modularity Hypothesis and the Adaptation Hypothesis, Murphy and Stich emphasize that Darwinian Modules are like dedicated computational devices that are linked together in complex networks (such that the “output” of one module might serve as “input” for other modules). In contrast to other approaches to evolutionary psychology, such as Tooby and Cosmides (1995), Murphy and Stich claim that “there is no reason to suppose that all of the mechanisms to be found in the mind are plausibly viewed as modular. In addition to the swarm of modules, the evolutionary psychology model of the mind can accommodate computational devices that are not domain specific, stores of information that are not proprietary, and a variety of other sorts of mechanisms” (Murphy and Stich 2000, 64-65).

Murphy and Stich outline four ways an evolved mind might be subject to malfunction. First, a module might be malfunctioning by not generating appropriate output – i.e., there is a problem internal to the module itself. Second, a module might generate problematic output because it receives problematic

input from somewhere further “upstream” in the network (garbage in, garbage out). Third, mental disorders may arise due to inaccurate information – for example, one may never acquire the relevant beliefs about the particular value of exchanges in the context of social reciprocity. Without the right set of beliefs, an individual might systematically over-value his/her contribution to a cooperative exchange – which is often a symptom of histrionic or narcissistic personality disorder. What are currently classified as mental disorders may be the result of improper socialization to local customs and mores, not a malfunctioning of any cognitive module per se. And finally, malfunction might result from a mismatch between mind and environment (where the environment is utterly different from what the mind is ready for). Today, numerous phobias are considered mental disorders – for example, fear of strangers, fear of open places, or fear of heights. While these phobias may disrupt daily activities in modern society, these phobias were probably excellent survival strategies used by our ancestors. So, for those of us afraid of strangers, open places, or heights, our minds are working exactly as they should, given the input they receive – it is our industrial society, filled with high-rise office buildings, huge super-malls, and crowded streets, that has changed—the evolved human mind is not designed to function in all aspects of modern society.

Murphy and Stich argue that in order to count as a mental disorder, a condition that afflicts an evolved mind must be located somewhere in their taxonomy, with preference placed on the first two sources of malfunction. With respect to personality disorders, they conclude that “if... the mechanisms underlying various sorts of personality disorders are adaptations that evolved in environments which were relevantly similar to the modern environment, then people with these conditions do not have [problems that beset an evolved mind], and thus, we maintain, *they do not have mental disorders*” (Murphy and Stich 2000, 91). In other words, Murphy and Stich reject the DSM classification and diagnosis of mental disorders in favor of an evolutionary psychology model. The upshot of this evolutionary approach is this: what formerly counted as a mental disorder may not be a mental disorder at all. A “mental problem” would not count as a mental disorder so long as the overall cognitive architecture is functioning as it was designed to function.

From this evolutionary approach to psychopathology, the kinds of self-deception discussed above (such as inflated self-appraisals, concealing fear, etc.) are adaptive cognitive strategies that enhanced survival. Hence, self-deception is not a mental disorder. The mind of the self-deceiver is functioning according to cognitive strategies that evolved in order to maximize inclusive genetic fitness. So, while self-deception might be responsible for numerous false beliefs, this is not an adequate basis on which

to conclude that self-deception is an instance of malfunction. From a Darwinian point of view, we should not treat self-deception as a kind of cognitive impairment or malfunction. Attributing to yourself an increased responsibility when group projects are successful, denying your own responsibility when things fail, and overestimating your abilities are all widespread examples of garden-variety self-deception. While these cognitive strategies do not maximize the *truth* of your beliefs, they may enhance (or maximize) your genetic fitness – or, I should say, they may have enhanced the genetic fitness of your ancestors... and that’s why you’re here today. Again, according a Darwinian approach to psychopathology, in order to count as a mental disorder, something has to be broken – something must be malfunctioning. Generating false beliefs is not a case of malfunctioning. What I’ve tried to suggest is that self-deception occurs routinely as a part of the normal functioning of an evolved human mind.

#### E. Conclusion

A complete understanding of self-deception must include biological considerations – including “why” questions about the basic functioning of human cognitive faculties. Once answered, we see that self-deception may not be a malfunction at all, and so self-deception may not be pathological, nor is it necessarily an “irrational” doxastic practice. From an evolutionary point of view, self-deception may be indicative of a normally functioning, evolved human mind.

My contention is that while we have some capacities that allow us to decipher truth from falsehood, there are many contexts where *truth is not the aim*. Even our most fundamental, personal beliefs – about our abilities, our intentions, or our daily activities – are not as accurate as we have traditionally supposed. This suggests that we may need to re-evaluate the notion of self-knowledge (long thought to be an epistemically secure area of philosophical inquiry). But, just because we systematically generate false beliefs, should we therefore treat this tendency as a case of pathology? If I’m correct, then the answer is: not necessarily.

Humans were not designed from scratch with the purpose of deciphering truth in all contexts (despite Descartes’ tendency to insist otherwise). We were built, like other organisms, from the leftovers in Mother Nature’s cupboards; we were thrown together randomly (and retained selectively); we come equipped with cognitive faculties that were “good enough” in the great evolutionary trade-off that

enabled early hominids to survive long enough to reproduce. “We are their descendants” (as Michael Shermer says in *Why People Believe Weird Things*).

As Stephen Jay Gould notes, “Nature does not exist for us, had no idea we were coming, and doesn’t give a damn about us.” And, it might be said that Nature doesn’t give a damn whether we have true beliefs, even though philosophers might. But since the processes of evolution (not philosophers) are what equipped us with the cognitive faculties that we use to form beliefs, I see little assurance that evolution has equipped us in order to fulfill the epistemic goals that epistemologists have created.

Natural selection could care less whether or not we have true beliefs – what matters is that we get our bodies out of harm’s way, find food, and reproduce (and even then, if we die off, Mother Nature probably won’t even notice). We can accomplish these tasks without a set of beliefs that’s entirely true. In fact, we could probably do *better* with some false beliefs. As Mele (2005) states, “On many topics, a bit of self-overestimation is harmless and even useful. One potential effect of your overestimating your congeniality is your being more outgoing than you would otherwise be, making more friends, and having a better time socially.”

Being outgoing and making friends is surely a decent way to enhance one’s reproductive fitness. Those who leave the most offspring... who leave the most offspring... who leave the most offspring... are the winners in the evolutionary game. Those who have reliably true beliefs may or may not be among those left standing – there’s just no guarantee. What matters is survival and reproduction. From an evolutionary point of view, a little self-deception goes a long way. After all, it got us this far.

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