

# Debate on Free Will, Philosophy Forum, Nov 2004

## Research question on free will.

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Simple enough question :

Roughly speaking JP Sartre denies determinism but sees the resulting freedom as a terrible burden of responsibility. He feels that being the author of ones own life leaves us with no option but to take responsibility for all of the things which happen to us.

I am interested in finding out how people would choose between the following two options :

In Reality A the whole of the future is pre-determined and our "free will" is limited to "freedom from interference from an outside agent" i.e. it is a very convincing illusion of free will. We are arguably "influencing the future as we go along", but we cannot change what is already destined to happen because our influences on the future are themselves determined by previous events.

In Reality B the future is not predetermined at all. There may be a certain probability that certain things will happen, but until they happen there is genuine uncertainty about the future. In Reality B we are, at least to some extent, the true authors of our own lives. In Reality B we have some degree of "real" free will, not just an illusion of free will.

Which reality would you choose to live in?

By Geoff23

Geoff23,

Unless I could tell which universe I'm in, I wouldn't care. If every other day, I went from one to the other, what difference would it make? I can't think of any, so the choice seems pointless.

I would also like to comment that the descriptions of the two cases smuggle potentially unwarranted assumptions about the relation between free will and determinism.

By Faustus (Brian Petersen)

Quote:

Originally Posted by **Faustus**

Unless I could tell which universe I'm in, I wouldn't care. If every other day, I went from one to the other, what difference would it make? I can't think of any, so the choice seems pointless.

I am offering you the choice. So in this experiment you *would* know. Obviously being denied a freedom you don't know you have isn't going to bother you. I am asking you which you would choose if you could choose. I am asking you whether given the choice, this is a freedom you would want.

So, given that in the thought experiment you *can* tell, which choice would you make? Would the freedom you were being offered matter to you, or not?

Quote:

I would also like to comment that the descriptions of the two cases smuggle potentially unwarranted assumptions about the relation between free will and determinism.

Care to elaborate?

Case A is compatibilism. Case B is co-creational free will. There are no assumptions about the relationship between free will and determinism. I am giving you a choice between two realities where two different conceptions of free will apply. I don't care whether you want to call case B "free will" because it makes no difference to the question. Nothing has been "smuggled" anywhere.

I realise that many people believe they live in reality A and aren't especially bothered by it. What I want to know is whether people would prefer to live in reality B if they were given a choice. I want to know whether such a choice would be viewed as a burden or as an important freedom which mattered.  
By Geoff23

I don't see choice A as being an example of compatibilism at all, since you describe that situation as being a "very convincing illusion of free will" and later contrast A with B, where we have "real" free will. So basically you are asking people to choose whether they would like to have free will or not—but only on your terms. There is no room in your choices for a true compatibilist, who would see both A and B as having equal opportunities for genuine free will as opposed to an illusion of free will.  
By Faustus (Brian Petersen)

Geoff23,

The proper way to frame your question would have been: choose a deterministic world (A) or an indeterministic world (B), because that's all that distinguishes the two from one another.

To a compatibilist, the choice you offer has nothing to do with free will, so the suggestion in the first post that A offers an illusion while B offers the real deal begs the question.

Example: Jones throws a rock at entity X's head. Let's imagine that A and B are physically identical at the moment the rock leaves his hand, and part company only after that point.

In universe A, there is no randomness on any level about its trajectory, not even when we descend to the level of quanta (presumably, in such a universe the quantum gravity theories of folks like Penrose, which are ultra-deterministic, are true).

There is also no randomness here in terms of what goes on X's nervous system. Let's set that observation aside for now.

In universe B, there are minor random fluctuations, but they are unlikely to have an effect on the rock's trajectory—in almost all variations, it appears to follow the same path as its counterpart in A. Presumably, this is the universe we live in according to most quantum physicists.

Here of course, there will be indeterminate fluctuations in X's nervous system, but as in the case of the rock's trajectory, if they are truly random, then by and large they will cancel each other out, leaving X's reaction the same in universe B and it is in A, at least macroscopically in the majority of cases.

At this point, the free will compatibilist does not yet know enough about X to judge X's capacity for free will. The incompatibilist only knows enough to know that X might have free will, but only in universe B.

To know if X has free will, more details must be spelled out. Can X see the stone? Can X process that information sufficiently to understand that the stone is on an intercept course with its head? Does X have enough sophistication to understand this would be a bad thing? Can X act on that information with enough speed to avoid the rock?

The answers to these questions are going to be the same regardless of whether we are in universe A or B, because the questions are about the ability of X to possess and act upon talents, and that is a separate question from whether X is in a deterministic universe or not. For the compatibilist, these are the only questions that matter. That's why your choice of options rings false to me, being a compatibilist. I have no reason to think living in A or B makes a difference I should care about.

By Faustus (Brian Petersen)

Quote:

Originally Posted by **Geoff23**

You are still arguing about words I don't care about, Faustus. I don't care that you define free will as being compatible with the deterministic A reality.

I don't believe that for a second, since the very way you described the available options presumes a certain picture of free will which I do not share. So you are biasing the outcome. This becomes obvious when you write:

Quote:

Originally Posted by **Geoff23**

I started the thread to get some idea what people thought, but concluding that compatibilists don't want to provide an answer to this question is an interesting result in itself. By answering "B" a compatibilist would be implicitly admitting that there is something less than complete about the reality they already believe they live in. But at the same time they don't appear to want to choose to live in reality A either.

Yes, and this is exactly the bogus result you were seeking in the first place, virtually guaranteed by the way you described the choices.

Essentially, given the shallow way you describe a very complex issue, your question boils down to:

“Hey, would you like to have free will or not?”

Of course everyone wants free will. But your options are going to look ridiculous to some of us, particularly those who a) are compatibilists, and/or b) think free will through indeterminacy is incoherent. I'm in both camps. That is why I refuse to answer your question, for you have cleverly worded it so that no matter which option I take, I am tacitly lending support to an ideology I find ridiculous.

If you were interested in a legitimate poll of views on free will, you would have thought of less question begging options, and most likely would have offered more than two, assuming the software permits it. But gathering information doesn't seem to have been your goal so much as scoring cheap ideological points.

By Faustus (Brian Petersen)

**Membrain,**

Quote:

I can't even imagine an undetermined universe. If something wasn't reliant upon what came before it, what would happen?

In a word: anything.

Once one takes away determinism from the universe, we have a Dali-esque reality where people turn into trees and tigers can fly.

False dilemma. The mere fact that what will happen next is not determined by what happened before, does not imply that *anything* can happen next. Nor would the fact that anything could happen next (if that were the case) imply that all possibilities would be equally probable. The world we see around us is quite compatible with the hypothesis of non-determinism. Indeed, given that you are clearly using the word determinism to refer to a specific type of determinism, namely temporal causality, the fact is that it is determinism which the world around us appears to be incompatible with.

By Death Monkey (Kevin Dolan)

Quote:

Originally Posted by **geoff23**

I don't think there is anything even remotely ambiguous about the question.

We know you don't. That is the problem. Try to step back and look at the false dichotomy you've created.

That all organisms respond in many predictable ways to a stimuli, does not mean that all responses of an organism are predictable. And the more complex the organism, the more unpredictable the response is likely to be, since in a complex organism more information is processed to generate the response.

As is often pointed out, both inevitable and evitable situations for organisms exist in both deterministic and indeterministic universes. The only difference between a deterministic and indeterministic universe is that the evolution of behavior that results in improved evitability is somewhat easier in a deterministic universe. Simply because outcomes are somewhat easier to predict (or evolve behavior for) in deterministic universes.

Look at it this way, you can avoid some things but not other things. You can generally avoid rocks thrown at your head but maybe not the occasional lightning bolt. But even an amoeba can avoid some things and not others. Does that mean an amoeba has some infinitely small amount free will? In a realistic sense of the word, yes. Certainly it has more free will than a pebble.

Do we, with our much greater capacity to process information and consider the viability of alternative scenarios mean we have more free will? Yes it does. Does that mean that we have complete free will to do anything imaginable? No, it only means that we have a limited amount of free will, but it is the kind of free will worth having.

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

I wasn't talking about predictability. I was talking about causality. A computationally irreducible causal system remains causal even though it cannot be "predicted".

I agree. And if something can't, in principle, be predicted, then that leaves lots of room for organisms to respond causally in a variety ways. And as we can observe in this corner of the universe, there has been an explosion in the ability of living organisms to avoid some outcomes.

Quote:

Originally Posted by **geoff23**

That really does depend on what you mean by free will.

I would venture to say that a pebble has no free will worthy of any useful meaning, while even the lowly amoeba has some "microscopic" sort of intentionality in that it observably seeks 'good' things and avoids "bad" things. Free will as exercised by humans is observably more complex than the amoeba, but is still ultimately based on avoidance of harmful things and engulfment of good things.

It is interesting to note recent research which indicates that even bacteria have a "social" life of some sort through chemical signaling mechanisms. Not exactly like the party I went to last night, but still social in some microscopic sense.

Quote:

Originally Posted by **geoff23**

I don't deny that the freedoms you speak about are worth having. But I think this question runs deeper than the sort of compatibilist position you are talking about. I think it sits side by side with the mind-body problem as the hardest problem in philosophy and I don't believe for a second that I understand it properly. Take a look at some of the views on Ted Honderichs website for a taste of what I mean :

<http://www.ucl.ac.uk/~uctytho/dfwIntroIndex.htm>

I don't understand it properly either, but I'm glad that you feel the freedom for organisms to select courses of action is worth having. What other kinds of free will do you think there is?

I read a few papers by Honderichs and I am sorry to say that I found the signal to noise ratio to be very poor. Specifically he drones on interminably about nothing of significance that I can detect, but he's probably too profound for my meager intellect.

I disagree that there is a mind-body problem except in the sense of continuing and progressive research. It is a fallacy to claim that unexplained is inexplicable. Since the 1970's tremendous progress has been made in AI and cognitive science and this work is starting to be conceptually tied together philosophically by others such as Dennett and Paul Churchland. Read Death Monkey's posts in the recent thread on the mind and brain in which he makes it clear that the mind-body problem, like the philosopher's zombie, is a non-problem created by conceptual misunderstandings by some philosophers.

Quote:

Originally Posted by **geoff23**

With so much of humanity denied basic human rights it seems a little unrealistic to wish for metaphysical freedom when my own human rights are so well protected, owing to the good fortune I had to be born British. But on a deeper level what people need is *meaning* in their lives, and this question is connected to that issue. What I am trying to say is that the question isn't just about physics and metaphysics - it is also about ethics, morality and the meaning of life.

Let's see, did you leave anything out? Wait, what about why is there something instead of nothing?

Yes, sarcasm aside, I agree that people want meaning, even if that meaning is merely a deeply intuitive feeling without a shred of evidence in its favor. What do you think religion (and football) is for? Yes, these issues are connected evolutionary with ethics and morality. That's why twins separated at life show amazing correlations in personality traits and lifestyles. Is it all genetic? No, but it's a factor that is itself neglected by many social scientists because of the implications for their "blank slate" assumptions.

But this gets a little broad for this one thread don't you think? What was your point in starting this thread anyway?

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

I think there is freedom to initiate causal sequences from outside the normal physical causal system. This corresponds to a hidden variable theory of QM. The trouble with hidden variable theories is that the variables are hidden, as is the mechanism by which they influence causality. The trouble with all the interpretations of QM is that there is no empirical test to find out which is true. That leaves us with either philosophy or an unsolvable mystery. Bringing in the question of QM is always tricky. To be very clear : I am not stating that QM *suggests* that my view is true, but I am stating that it *allows* its possibility, in a way that 19th century science seemed to disallow it. For me, the combination of the possibility of it being true and a strong intuitive sense that *it is* true is enough for me not to be resigned to the inevitability of determinism.

OK. But, the point is that, your heartfelt intuitions aside, there is no need for quantum effects to provide "initiation." Initiation of what? Why an amoeba avoids or engulfs? Why would quantum mechanics be necessary to explain what is essentially a very complex chemical reaction?

On QM, different interpretations do indeed seem to provide different meta-physical assumptions and that's one reason why the Copenhagen interpretation has always bothered me. And that is because it places the "observer" at the center of it's interpretation while the history of science demonstrates that removing humanity from the center of our theories always results in better science.

This was true for the progression from the geocentric to heliocentric theory, it was true for the progression from creation "theory" to the evolution by natural selection theory, and I suspect that it will also be shown to be true once we remove the "observer" from QM interpretations.

One interpretation that is considered a very viable alternative by all major figures in physics (except Penrose, which ought to tell you something) is the Everett interpretation which merely assumes that the wave function never actually collapses, it just "decoheres" into multiple universes that quickly cease to interact with each other. This interpretation solves all sorts of problem with the standard interpretation and may even be testable with future technology. An easy to read FAQ on this interpretation that also discusses it's testability is here:

<http://www.hedweb.com/everett/everett.htm>

but I will just quote one small segment on whether this has any implications for the question of free will:

"Q24 Does many-worlds allow free-will?

Many-Worlds, whilst deterministic on the objective universal level, is indeterministic on the subjective level so the situation is certainly no better or

worse for free-will than in the Copenhagen view. Traditional Copenhagen indeterministic quantum mechanics only slightly weakens the case for free-will. In quantum terms each neuron is an essentially classical object. Consequently quantum noise in the brain is at such a low level that it probably doesn't often alter, except very rarely, the critical mechanistic behaviour of sufficient neurons to cause a decision to be different than we might otherwise expect. The consensus view amongst experts is that free-will is the consequence of the mechanistic operation of our brains, the firing of neurons, discharging across synapses etc. and fully compatible with the determinism of classical physics. Free-will is the inability of an intelligent, self-aware mechanism to predict its own future actions due to the logical impossibility of any mechanism containing a complete internal model of itself rather than any inherent indeterminism in the mechanism's operation.

Nevertheless, some people find that with all possible decisions being realised in different worlds that the prima face situation for free-will looks quite difficult. Does this multiplicity of outcomes destroy free-will? If both sides of a choice are selected in different worlds why bother to spend time weighing the evidence before selecting? The answer is that whilst all decisions are realised, some are realised more often than others - or to put it more precisely each branch of a decision has its own weighting or measure which enforces the usual laws of quantum statistics.

This measure is supplied by the mathematical structure of the Hilbert spaces. Every Hilbert space has a norm, constructed from the inner product, - which we can think of as analogous to a volume - which weights each world or collection of worlds. A world of zero volume is never realised. Worlds in which the conventional statistical predictions consistently break down have zero volume and so are never realised. (See "How do probabilities emerge within many-worlds?")

Thus our actions, as expressions of our will, correlate with the weights associated with worlds. This, of course, matches our subjective experience of being able to exercise our will, form moral judgements and be held responsible for our actions."

The rest of the FAQ is worth reading as well.

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

Agreed. Predictability is not what I asked about.

We know that. That is the very basis of the false dichotomy of your question. Consider: It is the fact that perfect predictive abilities are impossible for organisms or mechanisms, that actually provides us with the kind of free-will that we have.

Think of it this way: If we could predict the future with perfect accuracy, then we would have no choice but to make those perfect choices. We would have no free will, so to speak. If we did make anything less than perfect choices, evolution by natural selection would quickly weed those "less than perfect choosers" of us out of the gene pool and therefore existence.

But thankfully, in the real universe (as opposed to a philosopher's thought experiment), no organism or mechanism can predict the future with perfect accuracy, there is always uncertainty in our choices. Therefore we have the free will to make less than perfectly determined choices.

With that thought in mind, I think I'll have some more chocolate!  
By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

You mean the kind of "free will" that we are already *agreed* we have. You are still talking about compatibilist "free will". That isn't what is being discussed.

I'm trying to explain to you why whether we live in a deterministic or indeterministic universe makes no difference to the issue of free will. In either universe we cannot gain complete knowledge to perfectly predict the future and therefore we would have "real" free will to make imperfect choices in both cases.

Quote:

Originally Posted by **geoff23**

No, I don't think this is true. We would then be deprived of the illusion of free will that we currently have. We would know we had none. At the minute it feels like we have it, partly for the reasons you have outlined.

I said "so to speak". Yes, we would be perfectly aware that we have a choice, but evolution would quickly weed out those that "knowingly" make less than perfect choices. In any realistic sense of existence, would you really have a choice? If you hadn't split up my paragraphs you might have gotten that point.

Quote:

Originally Posted by **geoff23**

It might be pointed out that QM makes the future not perfectly computable even if we had a computer-outside-the-system with enough capacity to calculate the behaviour of the whole Universe. There's two reasons why we cannot predict the future.

As I said before, QM is unnecessary to explain free will because it's the same problem for both deterministic and indeterministic universes. Having everything determined or not determined is not the question that matters in free-will. If you thought about this you would see why your dichotomy is false.  
By Probeman (John Donovan)

Geoff23,

Maybe I misunderstand, but it seems to me that your "libertarian" free will is predicated on an indeterministic universe and your contrasting other free will is predicated on a deterministic universe. Is this incorrect?

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

This is true by definition. Libertarian free will is by definition incompatibilist, as is hard determinism. If "determinism" means "every event has a purely physical cause" then libertarian free will, by definition, requires determinism to be false. LFW requires there to be some events which appear to us as random, but which are actually the result of a non-physical form of causality. It is important that you do not equate "indeterministic" with "random". LFW requires there to be indeterminism which isn't random. So LFW requires as an indeterministic Universe and CFW, by definition, is compatible with determinism.

In that case, my criticism of your simple dichotomy stands as is. As Faustus said earlier, you have smuggled in unwarranted assumptions concerning free-will and determinism.

But I will now answer your simplistic poll since you don't seem interested in discussing your false dilemma: I wouldn't care which of your two meta-physical worlds I was in, since there is no physical way to detect a difference between them.

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

Well I thought I was clear. I hope it is clear now. Maybe I could have rephrased the question more helpfully.

You can use all the caps, bold and italics you like but you are once again trying to simplify the question to suit your own simple intuitions. My point still stands that your dichotomy of deterministic vs. indeterministic is a red herring for the problem of free will. Your dilemma can be relieved if you are willing to suspend your intuitions temporarily and consider the following.

Even if the universe is indeterministic at the quantum level that still leaves the neuron an essentially "classically determined" object. The real problem of free will still exists in either universe. Rather the problem really comes down to this : can mere mechanisms (or organisms built from mechanistic parts) have intuitive free will? The "libertarian" free will that some find so intuitive is based on the premise that no merely complex mechanism can have the kind of free will that they just know that they have. It's simply the argument from intuition. But unexplained is not inexplicable.

But first consider this before getting into a discussion of free will and mechanism. I assert that indeterminism cannot save the day. Let's suppose that determinism is false and therefore there are a number of ways that the universe could unfold given it's initial state (parts taken from Elton's "Dennett: Reconciling science and our self-conceptions"). In effect this is saying that the observable physical laws do NOT determine every outcome. Some might say that our brains in such a universe would have evolved redundant and correcting algorithms to filter out such indeterminacy for improved survival, but let us for the sake of the argument grant that a particular behavior of an organism is not strictly determined by it's prior state and the environmental stimuli it is exposed to.

So how is this bit of "slack" supposed to help free will act on our behavior? Some would claim that this bit of indeterminism allows our immaterial soul or spiritual mind substance to steer things one way or another. In that case we could ask, do no principles affect the course of our immaterial soul or dualistic mind? For example, if there are no principles affecting the soul or mind substance then our behavior is essentially

guided by random chance, which is hardly free will of the kind we want to have. On the other hand, if there are actual principles guiding our immaterial soul or mind then no progress has been made in explaining free will at all. Because these actual principles of our soul/mind, given the prior state of the soul/mind and given what is presented to it, will still dictate our behavior in a deterministic manner. Therefore shifting the cause of free will from the material plane into the immaterial plane has not provided any benefit.

Quote:

Originally Posted by **geoff23**

It is indeed interesting, and I understand your dilemma. Subjectivity both seem unavoidable yet nobody wants to fall into substance dualism.

I agree also that this is an interesting problem. The example of the pebble and amoeba is an intuition pump of my own that should start one considering why, if there is a microscopic difference in free will between the two objects, how that difference could be multiplied into the kind of free will we actually have. That is, the ability to avoid some things, but not all things.

It is helpful to consider that the problem of free will in organisms is somewhat related to the issue of design in evolution. Intuitively it just seems obvious that "design" has occurred on an intricate and overwhelming scale. But although "design" has indeed occurred, it has not occurred as a result of reason or forethought. It is a completely algorithmic and mechanistic process.

This is why the problem needs to move forward out of the rut of determinism/indeterminism. It is exactly because our intuitions are so unreliable that this problem exists. If we simply count on "how it seems to us" we will fare no better than the geocentrists that claimed that all common sense showed that the Sun goes around the Earth. I will get to the real issue of how mere mechanisms can have free will worth having (meaning a modest deflation of our intuitive conception of it) in a subsequent post, but feel free to comment on the above for now. I've got to grade a few remaining mid-terms.

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

Argh! Only if you insist on having ONE definition of free will. I didn't. I gave you TWO!

If you think there is no "dilemma" between libertarian free will and compatibilist free will then you simply have not understood this thread.

The compatibilist claims there is no dilemma. The incompatibilist claims there is. This is not a problem of my reasoning. It is a problem of you still not being able to grasp what the terms mean! Of course compatibilists claim there is no "dilemma" about free will. That is what "compatibilism" *means*.

Of course I know all this. The problem is that it is a false dilemma. That's why your "poll" is meaningless and misleading. You and the other "libertarians" are relying on your intuitions alone for this proposing this dilemma. I'm trying to show you why you are wrong in your heartfelt intuitions, but that seems to upset you for some reason.

Quote:

Originally Posted by **geoff23**

Sorry for not responding to the rest of your post - it's just irrelevant to what I have said. I am not interested in discussing the mechanism or lack of it.

I can tell. And that is why you will continue to wallow in agony endlessly in a dilemma based on your heartfelt but erroneous intuitions. Let me know when you are ready to discuss the real issues. In the meantime: have fun!

By Probeman (John Donovan)

Quote:

Originally Posted by **geoff23**

It cannot be, by definition. You can argue that one of them is impossible. You cannot argue that they do not differ, especially if you are arguing one of them is impossible and the other isn't!

Strawman. I said that the problem of free will does not turn on the difference between determinism and indeterminism. I never said either one was impossible.

Quote:

Originally Posted by **geoff23**

No, PB, I am not upset. I realise you are eager to show me my intuitions are wrong, but this question simply isn't what I am interested in.

Just trying to help you from barking up the wrong tree. Bark away!

By Probeman (John Donovan)

Quote:

Originally Posted by **NoSoul**

If you know it, empirically, then it "is."

I agree. And empirically, we know *nothing* about immaterial souls or immaterial minds; that's why they're called "immaterial"- they have no measurable effects. Instead, we only have Geoff's mysterian intuitions. See Death Monkey's discussion with Monroe concerning the brain and mind in another thread for details.

Just as was the case for the 19th century Vitalist's intuitive "knowledge" that organic substances required an immaterial "vital essence" to explain how they were different from inorganic substances, today we know that we no longer require our heartfelt intuitions, regarding immaterial forces or variables, to explain the ability of organisms to avoid harm or seek benefit.

In addition, evolutionary psychology has made enormous progress in the last 10 years explaining the basis of these cognitive, perceptual, moral and behavioral issues and many other aspects of what were once believed to be outside the domain of science. Besides, when have our intuitions ever successfully trumped science?

If you can see why an amoeba has some infinitely small, but still greater amount of free will than a pebble, then you are halfway there. As for more sophisticated aspects of human free will, we can discuss the mechanisms for those as well. But I'm about to restart the Dennett discussion thread on Consciousness Explained beginning with chapter 9 where he gives his model for human consciousness. As for why it feels to us both subjective and narrativelike is explained in subsequent chapters that will be summarized in installments. You may want to review the whole thread and join the discussion.

By Probeman (John Donovan)

Quote:

Originally Posted by **NoSoul**  
Probeman,

Since you agree with the point you cited, then I think we are "halfway there" to actually having a coming together of the minds. Interestingly, I feel this "coming together" is, on my part, largely from a literal, sincere philosophical orientation, while yours, pretty clearly, is from the "metaphysical materialist," skeptical-of-philosophy, suspicious-of-intuitions, broadly scientific orientation.

In other words, I don't think philosophy has no usefulness whatsoever.

Philosophy produced Existentialism, which, IMO, is (or at least can be/should be) very closely related, or at least tangential, to the project of "explaining consciousness" that you, Faustus, etc. are so interested in.

I disagree also that philosophy has no usefulness whatsoever. It can be very useful.

That fact that Dennett, Quine and other philosophers have made significant contributions to the issue is well known. I will say that those philosophers who refuse to be informed by scientific knowledge, do risk spinning their wheels for another 2000 years. The armchair of intuition, by itself, only gets one so far in these types of natural problems.

By Probeman (John Donovan)

Quote:

Originally Posted by **NoSoul**

Well, ONE thing about intuition, it's completely part of the activity of Subjective Experiencing, and *that* is the only thing, IMO, that cannot literally be tackled *exclusively* from the strictly, literally scientific viewpoint, and yet may said to still be "real," because Science operates by *intersubjective* interactions, third-party confirmation, and so on. However, Subjective experiencing itself being forever locked off from the purview of *any* third or second party, there is no other recourse but to rely on first-party reports. In a way, of course, heterophenomenology does this, to a degree; but, as Geoff23 points, the use of heterophenomenology is usually quite nonetheless quite dismissive & patronizing, as if Subjectivity is just a mere annoyance that is not to be taken seriously...

This is not an accurate account of Dennett's program. He takes completely seriously any subject's intuitive subjective account of "how it seems to them" as critical information that is central to any explanation of consciousness. However, he does not give intuitive subjective accounts epistemic priority in science because as science as endlessly shown, "how it seems to us" is not a reliable measure of "how it really is."

Although it may not seem intuitive, there is nothing that you are aware of (in the first person sense), that cannot be reported in some fashion. Death Monkey has patiently explained this to Monroe in another thread and I don't intend to repeat it here. The important point is that this process is not restricted to verbal reports. As Dennett says, heterophenomenology is:

"the neutral path leading from objective physical science and its insistence on the third-person point of view, to a method of phenomenological description that can (in principle) do justice to the most private and ineffable subjective experiences, while never abandoning the methodological principles of science. (CE, p72.)"

"How does it work? We start with recorded raw data. Among these are the vocal sounds people make (what they say, in other words), but to these verbal reports must be added all the other manifestations of belief, conviction, expectation, fear, loathing, disgust, etc., including any and all internal conditions (e.g. brain activities, hormonal diffusion, heart rate changes, etc.) detectable by objective means."

In other words, normal, progressive, confirmable, successful science. But digressing for a moment I think that it is important to realize that there is more than one issue at stake here. On one hand is the scientific issue of whether our consciousness is, in principle, explainable as purely material mechanistic-neuronal processes. Dennett would say, yes it is, just as a chess playing computer's strategy could be explained by voltages, chips and wires.

However, that explanation, like the explanation of biological activity in terms of quarks and quantum interactions is unnecessarily reductionist (greedy reductionism is what Dennett calls it). To "make sense" of the chess playing computer's strategy for winning, it is necessary to understand the computer's behavioral strategy as an "intentional" process with goals.

This is how Dennett wants to approach the issue of human consciousness also. Don't be a greedy reductionist. Yes, consciousness is a natural, mechanistic material process involving neurons, but it won't "make sense" if we try to analyze in that way. We need to take the intentional stance to understand these emergent evolutionary processes.

The other issue is philosophical and that is, just because we might be able to "objectify all subjectivity" (to use your own words), should we? For example, just because science could, in principle, discover exactly what the biochemical processes are that enable me to enjoy my steak dinner, is that necessarily something we should do? In some cases it might be useful knowledge but nevertheless, the fact that this process could, in principle, be "objectified" should not detract from my enjoyment of it whatsoever. After all, I really am an organism that avoids some things and seeks other things and my enjoyment of those things are reason enough to enjoy them.

It's the old romantic argument, but just because I understand the process which creates the sunset, does not mean that I can't enjoy the sunset. The same goes for consciousness- just because we might, in principle, understand consciousness, doesn't mean that consciousness isn't worth having. There are mysteries aplenty for all.

By Probeman (John Donovan)

Socrastein,

It might be helpful for you to know that Mariner believes in a Platonic/Lockean/Theistic "top-down" metaphysics to "explain" the appearance of consciousness, morality, logic, free-will, rationality and "truth." His assertion that science "has clear boundaries, and this is a metaphysical question, so science will never touch it" requires him to ignore most of the behavioral sciences, much of cognitive science and all of evolutionary psychology.

Never is a long time, but just as the appearance of "design" in the natural world was once thought to be irrefutable evidence for God, science has today shown, as was the case with biological "design", evolutionary evidence for the origin of not only our consciousness, but much of our seemingly chosen behavior including morality and altruistic cooperation.

He is constitutionally incapable of seeing that language, logic and rationality are tools invented by humans with evolutionary origins of their own, just like our ancestor's stone knives, that have greatly enhanced our ability to succeed and benefit from our efforts to avoid harm and seek benefit, especially when compared to the rest of the animal kingdom.

I often speculate that most if not all of these kinds of metaphysical beliefs would be less intuitively compelling, if the Neanderthals had survived to the present day. Would the Neanderthals be consciousness and have free will? But as the gap in language and tool use between ourselves and our primate cousins grows ever wider (precisely because of the rapid cultural evolution we now experience in our species), I suspect these Platonic intuitions to only become even more seductive to some.

Nevertheless, one reason that I expect that science will continue to uncover the natural origins for our evolutionary bottom-up "design", is because science, like evolution itself, is progressively adaptive exactly because it selects for usefulness in the real world, rather than for a particular metaphysical or non-material purpose.

Thus such sterile and useless metaphysical speculation limits itself to supernaturalists.  
By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

But we argued this before, and you are indeed constitutionally incapable of either studying metaphysics or studying Evolution in depth. Either study would be enough to raise grave doubts about your position.

I feel your pain! Yes, we did agree it. Spam, 180, Faustus and I all found your "logical" assertions, especially that your "epistemology" is infallible, to be laughable.

Imagine all those poor evolutionary psychologists, just wasting their time, because you and Aristotle already figured it out 2000 years ago! This is the guy that "proved" the Sun went around the Earth, right?

Let's get specific. If evolution/genes does not affect our behavior how do you explain studies of twins separated at birth (cited in Pinker, *The Blank Slate*) that show strong correlations in almost every profile that one can measure, including, verbal, mathematics and general intelligence, degree of life satisfaction, and personality traits such as introversion, agreeableness, neuroticism, conscientiousness, and openness to experience. They also have similar attitudes to controversial issues such as the death penalty, religion, and modern music. They resemble each other also in consequential behavior such as gambling, divorcing, committing crimes, getting into accidents, and watching television. They share dozens of idiosyncratic behaviors such as giggling incessantly, giving interminable answers to simple questions, and dipping buttered toast into coffee.

If genes can control this much behavior, maybe our much vaunted free-will isn't as freely chosen as you would like to believe?

Of course I do agree that we have some amount of free will (worth having) that falls within the limits of our genes and the environment (does any of us have the kind of free-will that can prevent us from getting hit by lightning?). But yet, just as the amoeba has more free will to avoid and seek than a pebble (though not much more), we have more freedom to avoid and seek than an amoeba (though not as much as some would like).

Why invoke the supernatural to explain the natural? The gap continues to shrink, as do you and your beliefs along with it.

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

Why should you remain blind to the fact that the natural does not explain the most basic things about you, *particularly* your ability to discern truth? I don't know. But I'm sure that laughter doesn't help .

Here you exhibit your basic fallacy. That you believe you can discern the truth.

But of course, just like Aristotle, you and I can't discern truth (though you would like to believe you can). We can only attempt to distinguish the more probable from the less likely. Yes, we really do seem to be fallible and mortal beings without direct access to "truth." Sorry you can't accept that.

Consider this philosophical argument:

1. Every mammal has a mammal for a mother.
2. If there have been any mammals at all, there have only been a finite number of mammals.
3. But if there has been even one mammal, then by (1), there have been an infinity of mammals, which contradicts (2), so there can't have been any mammals.

Why is this a contradiction? Where is the fallacy?

The fallacy is when we attempt to draw lines between things that are unwarranted. Like between reptiles and mammals, or between reptile and mammal behaviors. Or between primates and hominids. Or between primate and hominid behaviors. Or between primate social behaviors and hominid social behaviors. Or between the free will of the amoeba and the real but limited free will we actually have. It's an evolutionary continuum.

Of course we aren't completely "controlled" by our genes, just as we aren't completely free from our genes. And there between lies the reality of free-will that is worth having, by organisms that avoid harm and seek benefit. No supernature no quantum magic is required.

If you disagree there is a continuum, where do you draw the line? Where does free will start? Geoff claims it's in the quantum indeterminacy of Penrose's neural micro-tubules. The same micro-tubules that a cockroach has.

You want to have a soul that directs your free will, but is your soul directed by any principles? If not, your behavior is random, if so, are your soul's principles determined or guided by some other principles? Whose principles?

Where do you draw the line?

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

No, I can't accept it, for it leads to contradiction. As I said above, your behavior shows it. That you can accept a contradiction as "proof" of anything speaks volumes of your theory.

But I clearly don't accept it as "proof." Proof only exists in formal systems of logic with unprovable assumptions such as mathematics. That's why philosophy cannot provide proof for explanations of real world natural phenomena, because those necessary logical assumptions cannot be demonstrated, as Spam and others so clearly explained to you in the other thread. That's why we don't get "results" from philosophy. That task falls to lowly and fallible science. By an evolutionary process analogous to "generate and test." Proof is not required. Certainty is not required. Only usefulness.

Quote:

Originally Posted by **Mariner**

...no amount of magic, not even God can make a contradiction prove something.

I agree.

Quote:

Originally Posted by **Mariner**

Of course the soul is directed by principles. We see this every day. Some of the principles are indeed those provided by evolution, the search for food, mate, shelter, etc.

You didn't answer the question- whose principles is this untestable, unprovable, immaterial, immeasurable and supernatural soul directed by? And how do you know?

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

Whose principles? Those of the chooser.

How do I know? (new question, no wonder I didn't answer that one). Intuitively. Just as you know it intuitively, even though you say you disagree with it; and just as every knowledge ever held by any man is intuitive at its basis.

No, you once again evaded the question. So I'll ask again:

Where do the principles of the Chooser come from? Do they come from his soul's principles? If so, then, where do his soul's principles come from? And so on.

The philosophical solution to this infinite regress is to assign an essentialistic property to a concept, whereby this item has the essential quality and that item doesn't. Unfortunately, Aristotle didn't know what you and I know today. There is no essential mammal species just as there is no essential moment of choosing. We cannot draw a line between evolutionary species just as we cannot draw a line between a genetic preference for dipping one's buttered toast in coffee and the words I now choose to type. There is no place we can draw an essentialistic line in the sand.

Your argument seems to be that I don't know anything about philosophy so I should just go away, but it's you that has fallen into the trap of philosophical essentialism. Try to calm down, avoid the personal attacks and answer my questions.

Quote:

Originally Posted by **Mariner**

Are you certain of this? Or do you believe in it just because it is useful to believe in it?

Not 100% certain, but evolutionary explanations do produce results that are useful, as opposed to your metaphysical mysticisms. So I'll stick with what works if you don't mind.

Again, try to answer the question:

Where do the principles of the Chooser come from? Do they come from his soul's principles? If so, then, where do his soul's principles come from?

By Probeman (John Donovan)

Quote:

Originally Posted by **zephos**

So if the mind is made of those two ingredients [Your physical parameters and your experiences.] and when your mind is finally "aware" enough to make "decisions" it is only at that point because of entirely pre-determined [to one's own will not birth but just one's own will] where does free-will come from. Where does free-will come from? How is it that will and its "freedom" is not determined if all the building blocks of will are determined?

It is true that we are products of both nature and nurture so far as that goes. Your questions are 2000 years old, but thanks to Darwin and efforts by a few subsequent philosophers such as Dennett, that utilize an evolutionary perspective, some recent progress has been made in answering these age old questions.

Human behavior is often determined by nature but also often by the environment. Stop, for a moment, and consider other species. As you said, they react variously, unpredictably and not always instinctively like us. Can a cat be said to have any small amount of free will at all (that is the ability to avoid some things, but maybe not all things)? If so, follow this back to the amoeba and we can see that all organisms have some real but limited amount of free will, qualitatively more than a pebble has.

What is this free will? It is simply the ability of an organism (unlike the pebble) to respond to the environment, based on it's nature, in order to avoid harm and seek benefit regardless of the amount of determinism or indeterminism in the universe. Free-will is a continuum of behavior by living things from the amoeba to us and as Dennett's book title states "Freedom Evolves." It's worth reading and makes progress on answering on an old question.

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

Free will means that the will is free . The soul's principles come from itself. That's what freedom means, in context.

You evade again.

Your answer, "the soul did it", explains no more than the creationist saying "God did it". All you've done is cover up your lack of knowledge and understanding with the word "soul."

Where do the soul's principles come from? How did they get there? We'd like an explanation please.  
By Probeman (John Donovan)

Originally Posted by probeman

Where do the soul's principles come from? How did they get there? We'd like an explanation please.

Quote:

Originally Posted by **Mariner**

Where did the color of the leaves come from? Where did the force of gravity come from? We'd like an explanation, but life doesn't work like that. Sometimes we have to accept what is in our face. It is *much* more reasonable to admit that we can't explain everything than to deny the obvious just because we can't explain it.

The man is astounding. Yet another evasion!

Instead, your "argument", like that of the creationist, merely consists of appeals to the intuitively obvious, along with a strong dose of the "unexplained is unexplainable" fallacy. Fortunately scientists know all too well that our intuitions are ever so fallible, and that the unexplained is not an excuse for appeals to miracles, but simply a call for more detailed investigation into nature.

But to exclude evolutionary explanations of human nature, by dismissing entire fields of science, simply because of your religious belief that the "soul did it", is sadly so typical of the supernaturalist.

By Probeman (John Donovan)

Quote:

Originally Posted by **zephos**

So I get that your saying free-will is interaction with the environment but I don't see how you support such a claim. A virus isn't alive yet it reacts to the environment, FIRE isn't alive yet it reacts to the environment. Why is environmental reaction free-will?

It's not the kind of free will that humans currently experience, but it is an explanation of how it starts.

Imagine explaining how the human body came to be without Darwin. It would be pretty tough, right? Without the theory of evolution by natural selection, explaining any biological life, and especially human life, would be very difficult. One would have to posit all kinds of strange untestable, but intuitively appealing and "obvious" ideas like omnipotent gods, or more recently even advanced aliens.

So assuming you are unsatisfied with the "soul did it" or "god did it" explanations, you might want to consider that, along with the evolution of life, came the evolution of "reasons." Consider the following statement and question:

"Four billion years ago, there was no freedom on our planet, because there was no life. What kinds of freedom have evolved since the origin of life, and how did evolutionary reasons- Mother Nature's reasons- evolve into our reasons?"

-Dennett, "Freedom Evolved", page 137

If you agree that an amoeba has infinitely small more "reasons" than a pebble, then you can start thinking about how preservation of one's self (as opposed to trying to preserve the rest of the universe) could give rise to all sorts of "reasons". Reasons to know where one's self ends and the rest of the world begins. Reasons to avoid harm and reasons to seek benefit.

"The freedom of the bird to fly wherever it wants is definitely a kind of freedom, a distinct improvement on the freedom of the jellyfish to float wherever it floats, but a poor cousin of our human freedom. Compare birdsong to human language. Both are magnificent products of natural selection, and neither is miraculous, but human language revolutionizes life, opening up the biological world in dimensions utterly inaccessible to birds.

Human freedom, in part a product of the revolution begat of language and culture, is about as different from bird freedom as language is different from birdsong. But in order to understand the richer phenomenon, one must first understand its more modest components and predecessors. What we must do to understand human freedom is to follow Darwin's "strange inversion of reasoning" and go back to a time at the beginning of life when there was no freedom, no intelligence, no choice, but only proto-freedom, proto-choice, proto-intelligence."

-Dennett, Freedom Evolves, page 143

Are you with me so far?

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

...Isn't it funny? I say "we lack the data to answer that", and he accuses me of being unscientific .

There you go again- re-writing history (besides that there is the small matter of data from zoology, anthropology, evolutionary psychology, etc. that at the very least begins to answer the question, but you chose to ignore it all, because as a supernaturalist you want the gap to remain unanswered). Have you read "The Evolutionary Origins of Morality" edited by Leonard Katz yet?

Actually, to set the record straight, when I asked where do our free will principles come from, you did not say "we lack the data to answer that". You said "the soul". And when I asked where do the soul's principles come from, you said "itself."

The last time I checked, "the soul" was not a scientific theory.

Quote:

Originally Posted by **Mariner**

Last time I checked, I didn't say it was.

Then stop claiming that the "soul" is an explanation. Claiming that the "soul" is an explanation for free will

explains no more than claiming "god" is an explanation for the origin of species. It's just a word that substitutes mystery for explanation.

Quote:

Originally Posted by **Mariner**

Last time I checked, scientific theories were not the only kind of knowledge there is (not even the most important)

Whether they are the "most important" kinds of knowledge or not, I don't know. They certainly are among the most useful.

Yes, scientific theories are not the only kind of knowledge. But they are the most reliable kinds of knowledge when it comes to nature (and that includes human nature). Your repeated attempts to exclude human nature from the natural world and its investigation by science has already failed. Your God of the gaps is shrinking with every new understanding of evolutionary psychology, neurobiology and cognitive science.

Quote:

Originally Posted by **Mariner**

Most importantly, last time I checked, your speculations about the evolution of freedom were certainly not scientific.

The evolutionary issues of intentionality, free will and morality are closely connected. Obviously you haven't checked the literature, read my posts in the previous thread on primate studies or even read the one book I suggested for you that provides evidence for the evolutionary origins for morality from not only animal behavior studies, but anthropology, zoology, evolutionary biology and evolutionary psychology.

Quote:

Originally Posted by **Mariner**

Easy to put on the label "not-scientific" and sleep comfortably. Easy, that is, if you want to avoid thinking about it.

I have to say, I've never lost any sleep over the question of whether I have a soul or not. But, it would appear that you have.

Furthermore, my pointing out that neither "the soul did it" or "god did it" is a viable scientific explanation, is hardly a controversial statement worth losing any sleep over.

Quote:

Originally Posted by **Mariner**

Science can't touch this question. As many others.

How many times in the history of science has this been asserted, and subsequently been refuted?

The fact is, we will never find the answers if we don't ask the questions. You would have us declare certain fields of current scientific inquiry off-limits simply because you want them to remain mysterious in order that you can continue to hold on to certain religious beliefs. That's not a good enough reason.

By Probeman (John Donovan)

Quote:

Originally Posted by **Socrastein**

I'm just wondering if I'm wrong in thinking that curvature of space-time/exchanging of gravitons are

explanations/causes of the force of gravity, or Mariner is right in saying I'm confused, for they are really just descriptions of the exact same thing.

Gravity. Hmm. I'm only a chemist, but I ran your question by a physics colleague of mine and he says that the answer to your questions are that nobody understands gravity at a fundamental level, but yes gravity is manifested by the curvature of space and almost certainly is mediated by graviton interactions (which would tie it together with other aspects of quantum physics), although they have yet to be detected, and probably cannot be in any currently conceivable experiment. This is of course a hot topic and recently has been an idea pioneered by Nima Arkani-Hamed on extra dimensions: see

<http://www.physics.harvard.edu/nima.htm>

for a much more lucid explanation than I can give.

But you don't need gravity to understand a naturalistic explanation of free-will. The bottom line for your discussion with mariner is that the "unexplained is not inexplicable." Do we understand immensely more physics, chemistry and biology than we did 100 years ago? Without question. Have fundamental problems been solved? Clearly. Do we know everything? Of course not.

I don't know if you've seen the thread by DM and Monroe on neuroscience and the mind, but DM clearly lays out the problem with intuitively appealing notions of consciousness (and the associated issues of free-will and intentionality), that contain as assumptions, the very dilemma that they endeavor to explain. This quest also becomes more difficult than it normally should be because there are other persons that want these topics to remain mysterious and beyond the reach of science.

My approach is to slightly deflate our intuitive notions of these emotional issues and not to fear naturalistic explanations of them. Hey, the human race survived Galileo and Darwin (though the former's ideas weren't easily accepted at the time and the latter's ideas on biology are still hard for some even today), and we will survive a natural explanation of human nature as well.

By Probeman (John Donovan)

Quote:

Originally Posted by **Monroe**

DM, probeman-- could you illustrate your point by providing examples of inflated and deflated notions of representation?

Monroe,

DM seems to have dealt with the issue of representation cleanly, so I'll give an example of a slightly more involved intuition though I will leave out many details that can be provided if you are interested enough.

There are very intuitive and complicated notions of "self", "choice" and "reasons" that all humans, but especially philosophers seems to draw upon. I will attempt to begin to illustrate how Dennett might start to deflate our notions of these items by showing how "proto-self", "proto-choice" and "proto-reasons" could have come about. From there we can move on to more complex manifestations of these notions and eventually arrive at what we humans all seem to share and proclaim to be utterly confounded by how they could have occurred naturalistically.

I am reminded of the scene in Sherlock Holmes where he presents to Watson a conclusion (I think it was not to buy South African gold shares) based on an initial observation and Watson claims to be utterly confounded as to how he arrived at the conclusion so accurately. Holmes says that once he presents the intervening steps Watson will no doubt exclaim "How absurdly simple" and of course Watson does just that

after Holmes obliges.

We used to have such an analogous situation in biological evolution. How, could something as perfectly designed as the human body come to be through simple and blind algorithmic merely chemical processes? Today we know.

In a similar manner, I think we can all agree that a pebble has no self, no choices, no reasons. No "freedom." And more importantly no need for them. Yet, even a simple amoeba has a number of degrees of freedom (at least from an engineering standpoint). It can move, retract or it can engulf. This process may be no more complicated than a light switch (actually it's a quite complicated chemical reaction even at this primitive level), but there can be little doubt that its continued ability to replicate depends greatly on whether it retracts or engulfs at the appropriate moments. Its continued existence and more importantly its offspring's future existence depends on these simple and limited but real "choices." Dennett puts it this way (paraphrased from *Consciousness Explained*):

“In the beginning, there were no reasons: there were only causes. Nothing had a purpose, nothing had so much as a function; there was no teleology in the world at all.”

This is because there was nothing that actually had “interests.” But after a while there emerged simple replicators. Though they had no inkling of their interests and it would be proper to say they indeed had no interests, we, looking back from our “god-like” perspective can assign them certain interests by defining them an “interest” in self-replication. Of course their replication didn't really matter to anyone and really made no difference whether they replicated or not (though perhaps we might be grateful they did replicate), but we can say that if these simple replicators are to survive and replicate in the face of increasing entropy (disorder), their immediate environment must be conducive to replication at least some of the time.

To put it anthropomorphically: if these simple replicators want to replicate they should “hope and strive” to avoid “bad” things and seek “good” things. The “good” for such an entity (by our non-teleological definition) is to, however primitively, avoid its dissolution and decomposition. This is the simple replicator's “point of view” if you will. In this “point of view” there are three kinds of world events: the favorable, the unfavorable and the neutral. Any behavior, even simple chemical causes, of these simple replicators that improves its replication, is a reason or interest in our limited sense, however “unself” recognized that behavior might be to the organism itself.

Now as soon as something is in the business of (preserving) self-replication, boundaries start to become important. Simply because if you are preserving your replicating self, you don't want to waste your energy on preserving the rest of the universe. So you need to draw a line. The replicator becomes, in a word, “selfish”.

Obviously this primordial “selfishness” does not have most of the variety and breadth of human selfishness, but this “selfishness” is distinctly different from non-life. A piece of granite can in no sense imaginable, be said have an interest in where its boundaries are. Nothing “works” to protect a fracture boundary, no

mechanism pushes the boundary back to preserve itself. All things biological have the imperative- "me against the world". Not just ingestion and excretion, respiration and transpiration but also other processes.

Now what does it mean to say something biological has choices? It has nothing to do with indeterminism or determinism, it depends on whether there are steps that an organism can take, based on information from the environment, in time to avoid the potential harm or seek the potential benefit. There are only two requirements for a meaningful choice: information and a path for the information to guide.

Now the choices that a parasitic cell or redwood trees make in this effort to survive and replicate don't seem all that clever (though they've been around far longer than we have), it takes some effort to see this as an "intentional stance" as Dennett would say. The more recognizable decisions made in real time by more salient individuals had to await the arrival of locomotion. Sure we could generously grant that trees can "decide" that spring has come and it's time to blossom or that clams can "decide" to shut tight when they sense an alarming bump, but these are such rudimentary options that they resemble a simple switch turned on or off.

But even a simple switch, turned on or off by some environmental change, denotes that "degree of freedom" that I mentioned earlier. Think of the male turkey that starts his dance of courtship when presented with the wooden head of a female turkey (even when the wooden head is minus the body!). Stupid turkey! But wait, even human males show marked physiological changes when shown pornography, even though it's just colored ink and paper! But of course, we human males "know" that it's just a picture, nothing more. But then, why do we males respond so markedly to just colored ink and paper?

I digress. Dennett's point is that even a simple switch (on/off or multiple choice) can be linked to other switches in series or parallel, and in arrays that proliferate and combine both sorts of links to create immeasurable degrees of freedom where the issues of control become complex and non-linear. What sort of information ought to modulate passage through this array of forking paths in a multi-dimensional space of possibilities?

In short, a brain. A brain with sensory inputs and motor outputs is a localized device for mining the environment for information that can be refined into anticipated outcomes (sometime called scenario spinning) that can be used to modulate choices. Dennett points out:

"Of course speed is of the essence, since the environment is always changing and teeming with competitors, but so is accuracy (since among the competitors options are such tactics as camouflage), and so thrift (since everything costs something and has to pay for itself in the long run). "

These evolutionary conditions generate trade-offs, "with a premium on swift, high fidelity, high-relevance sensory attention." The fact that it's an evolutionary arms race promises that each species will ignore what it can afford to, which is a gamble on whether a previously innocuous variable suddenly takes on fatal implications.

The upshot of an environment with some unanticipatable but relevant novelties poses a critical tradeoff for a certain class of adaptations. Will the evolutionary "investment" cost for a particular innovation within a species, payoff by the ability to "learn?"

This is not an evolutionary "no-brainer"! The evolutionary overhead of "exapting" existing hard-wired brain features, to permit switching networks to be re-designable in real time (during the individual's lifetime), so that it can adjust control functions in response to new sensory information is non-trivial. Such fancy mechanisms will only "pay for themselves" if there are enough occasions for learning. Use it or lose it is the evolutionary motto.

I'll leave it here for now and continue if you are still interested.  
By Probeman (John Donovan)

Quote:

Originally Posted by **Monroe**

Heheh... come on now, that's not an accurate characterization of science or scientists.

I did use a "smilie", but I can assure you that it's far more accurate than you realize. Trial and error along with serendipity play an large role in scientific investigation and success. The parallel with natural evolution has been noted by others before.

Quote:

Originally Posted by **Monroe**

probeman, I'm not sure exactly how that discussion of choice and information processing addresses the issues of this thread. If it has something to do with "representation = successful information processing", then the brain in the vat either has no representation, or it refutes the proposed reduction because it doesn't process information about its environment; it is under a massive delusion.

The brain in the vat did not evolve is the point. Your brain did. Your brain successfully (well most of the time, you're not infallible) represents it's environment every time you cross the street. Your "thought experiment" completely avoids the actual issues of how brains came to be useful.

If you can't see how the evolution of brains and brain functionality bears on your dilemma, you will never make any progress on the issue of why the brain uses representation of the environment to improve it's choices.

By Probeman (John Donovan)

**Monroe,**

Quote:

Sure. If system A behaves as though the information it is extracting from its interactions with X, were actually information about Y, then system A is performing representative behavior, and is treating X as a representation of Y. Note that this definition assumes that A is a system capable of both information processing, and making decisions based on the results of that information processing.

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The "behaves as though" part seems nonreductive. What does it mean, that the system believes it is getting information about Y via X and acts accordingly?

No. Remember that system A is an information processing and decision making system. What I mean is that it infers information about Y from X. This process of inferring facts about one thing from facts about another thing can be described entirely in terms of information processing. There is no need to appeal to concepts such as "belief".

An important point to note is that *all* that is required for something to be "representative", is the ability to perform information processing and make decisions. For example, a complex computer program could do this. This is an important point, because the whole point is to try to explain consciousness by first explaining its simpler components, one of which is representation. A definition of representation which only makes sense for conscious beings would be useless in this respect.

**Banno,**

Quote:

Sure. If system A behaves as though the information it is extracting from its interactions with X, were actually information about Y, then system A is performing representative behavior, and is treating X as a representation of Y.

DM

---

I don't follow this definition of representation. If one can only determine if something (what?) is a representation by looking at the "behaviour" of the system, then one is simply back in the behaviourist camp;

The definition I gave *is* a behavioristic one. That is the whole point.

Quote:

that is, the theory cannot account for deception or misunderstanding or any other if the many intentional states that might result in the same behaviour.

I don't see why you would say that. You seem to think that when I talk about behavior, I am just talking about overt bodily behavior. This is not the case. I am talking about the behavior of the brain itself. Representation occurs in the brain on many levels. The system in question is some part of the brain, and the behavior in question is the behavior of that part of the brain.

You are absolutely correct in thinking that a detailed explanation of the mind cannot be found by looking only at overt bodily behavior. That notion of behaviorism was abandoned decades ago. When modern scientists talk about behaviorism, they are talking about **all** forms of observable behavior, including brain activity.

I would be very surprised indeed if the different intentional states you mentioned corresponded to the same brain activity. Indeed, there is clear scientific evidence that they do not.

By Death Monkey (Kevin Dolan)

**Monroe,**

Quote:

Appeal to "inference" is nonreductive.

How so? My definition defines one type of emergent property (representation) in terms of other simpler emergent properties (such as information processing). Likewise inference is a component of information processing. The whole idea is a step by step reduction, at each step describing a complex phenomenon in terms of other simpler ones.

I don't see what your problem with this is.

Quote:

You are absolutely correct in thinking that a detailed explanation of the mind cannot be found by looking only at overt bodily behavior. That notion of behaviorism was abandoned decades ago. When modern scientists talk about behaviorism, they are talking about all forms of observable behavior, including brain activity.

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Not really... I don't know what scientists you've been talking to.

Psychologists and neuroscientists. The people I work with.

**Banno**

Quote:

Very interesting. I had no idea that one could use the term behaviour to refer to physiology. Not exactly an aid to clarity, is it?

Why not? Your brain is a part of your body, right? How is what your brain is doing any less an example of behavior than what your right leg is doing? How is behavior such as increased breathing rates or sweating any less a reference to physiology than what your brain is doing?

By Death Monkey (Kevin Dolan)

Quote:

Originally Posted by **Death Monkey**

Why not? Your brain is a part of your body, right? How is what your brain is doing any less an example of behavior than what your right leg is doing? How is behavior such as increased breathing rates or sweating any less a reference to physiology than what your brain is doing?

DM

DM,

It does sometimes get frustrating trying to explain basic cognitive science to those who not only refuse to get out of the armchair but also refuse to accept the evolutionary, behavioral and physiological evidence that the brain (and brain functions) have evolved along with the rest of the human body over millions of years. Also that there are precursors or analogues for almost every function of the human body and brain in the animal kingdom.

I wonder if it might be worth pointing out that one of the reasons scientists study "lower" forms of life is not just because of the ethics of using human subjects, but also because these forms are often simpler versions of ourselves and can often help shed light on human brain processes that are currently too complex to tackle with human brains.

It's almost as though some philosophers only want to consider the human mind as though it magically dropped out of the sky one fine day and fell into our skulls. How nonreductive of them!

By Probeman (John Donovan)

**Monroe,**

Quote:

As you seem to be using it, "information processing" just means having different responses to different stimuli. I don't see how this is an inference.

That is not what I mean by information processing. I am using the term according to its scientific definition, as used in computer science, neural network theory, and neuroscience. See here:

[http://en.wikipedia.org/wiki/Information\\_processing](http://en.wikipedia.org/wiki/Information_processing)

Quote:

Anyway, how does this cover false representation? Why are the vat-brain's "inferences" false, while a normally situated brain's are true? They have the same responses to the same stimuli don't they?

The system infers information about Y from X. If the facts about Y which it has inferred are not true, then X is a false representation of Y.

Quote:

Why not? Your brain is a part of your body, right? How is what your brain is doing any less an example of behavior than what your right leg is doing? How is behavior such as increased breathing rates or sweating any less a reference to physiology than what your brain is doing?

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DM, please. At a time when we still have some old-school behaviorists living among us, it's far too soon to be changing the meaning of such key words. Especially when the doctrine itself is less than a century old.

I don't recall anybody asking for my approval to change the definition. Take it up with the behavioral psychologists. They are the ones who now define it that way. At least, all of them that I have ever met do.

In any event, I cannot see any justification for defining "behaviorism" to arbitrarily omit some forms of behavior, such as brain activity, while including others such as respiration rate. The distinction is arbitrary and nonsensical. The original definition of behaviorism was just a bad idea in the first place. Fortunately, scientists have a tendency to learn from their mistakes, and correct them. Even psychologists.

By Death Monkey (Kevin Dolan)

Quote:

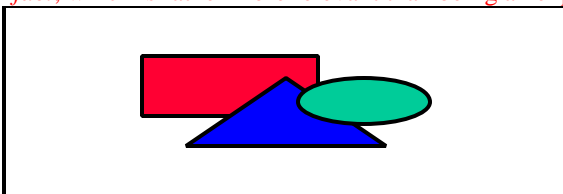
Originally Posted by probeman

Then stop claiming that the "soul" is an explanation. Claiming that the "soul" is an explanation for free will explains no more than claiming "god" is an explanation for the origin of species. It's just a word that substitutes mystery for explanation.

Quote:

Originally Posted by **Mariner**

I never claimed it is an explanation. (Though not every explanation is "scientific", as you seem to believe). It is a *fact*, which is rather more relevant than being an explanation.



will. But since you've evidently realized it doesn't  
im the "soul" is a fact? Uh, ok, sure, whatever you

re announcing the discovery of the "soul"! In what  
field will your Nobel Prize be awarded, do you expect? (If no scientist will deny the "law" of non-  
contradiction proving the "fact" of souls as you claim- they will just have to publish your discovery after  
all.)

In any case, the observation that living organisms seem to have apparently evolved a range of real but limited choices in response to their environment hardly seems enough to establish the "factual" existence of "souls." Oh, I almost forgot, logic- the observation that one thing and another thing gives us twice as many things, proves that we have "souls"! You really ought to publish this!

Quote:

Originally Posted by **Mariner**

...because it is only by positing metaphysical realms (not quite "supernatural domains", though, one doesn't have to believe in God or ghosts) that we can make any statement about the world.

How pompous of you! We don't need metaphysics to make statements about the world! We only need ignorance. Well, same thing most of the time.

PS. Regarding the importance of "facts", actually, you have it backwards. If you ask any scientist, they will tell you that explanations that are well substantiated by the evidence (aka, theories) are much more important than mere facts. Facts are for "stamp collectors." This is a point often misunderstood by non-scientists.

Popular conception in order of importance:

1. Facts
2. Laws
3. Theories
4. Hypotheses

Scientist's conception in order of importance:

1. Theories
2. Laws
3. Hypotheses
4. Facts

To scientists, theories are the most valuable items in the science treasure chest. Laws are very useful *where they are applicable*, and hypotheses can be used to test theories, but facts are a dime a dozen and change as better measurements or new technologies become available.

Of course there is also the issue that facts are merely "well established, well accepted observations and data with which it would be unreasonable to disagree with", which doesn't seem to apply to your idea of "facts" at all. Especially since the "soul" is not a "fact" accepted by scientists and apparently not by many philosophers today either.

By Probeman (John Donovan)

Quote:

Originally Posted by **Mariner**

Actually, when I say that the soul is a fact (something I have said lots of times earlier, but somehow I don't find it strange that you missed it).

Mariner,

Apparently you have also missed that I have repeatedly agreed that it is a fact that all organisms appear to have various observable degrees of real but limited amounts of free will. That is what scientists mean by a fact. Part what it is to be alive, especially to be an animal, allows for more choices than it is to be a pebble. It is also a fact that brains, especially larger brains, gives us animals more choices, and especially in the case of primates and humans, some limited ability to consider the success or viability of various courses of actions, can also be observed. In other words there is an observable range of proto-logic/logic or proto-reasoning/reasoning in the animal kingdom. That is a fact. Is this behavior caused by the supernatural? Science cannot say.

Since you appear to disagree with the scientific natural evolutionary explanation of free will and reason, maybe you can explain to us why we share so much of our genes with chimps and so much of our behavior

as well as cited by evolutionary biology and evolutionary psychology? You are saying this is just a coincidence? What exactly is so different about the reasoning used when a monkey keeps quiet because it believes a lion is nearby, and the soldier that keeps quiet because he believes an insurgent is nearby? Besides the obvious fact that one species has developed language and the other generally hasn't.

Where you really go off the deep end is when you claim that it is a fact that the "soul" (whatever that is) exists. From that bizarre claim, you then leap to the "fact" that the "soul" explains free will and logic. How does the "soul" explain anything other than your heartfelt intuitions? You have no evidence for either of these claims. They are simply religious beliefs and no amount of philosophical twisting and turning is going to change that. But do explain to us (if you can), if this "soul" some vital substance that inhabits all life forms to some degree? Because all organisms really do seem to exhibit real and limited free-will and the ability to reason to varying degrees. Do humans have twice as much "soul" as chimps?

I agree that I could be mistaken about whether we (and chimps) have souls. I could be mistaken about every religious belief there is. Maybe there really is a heaven and hell and gods and devils and souls. The point is that there is no positive evidence whatsoever for these things. I will also agree that as animals with brains we have some degree of free will and ability to consider choices and plan for successful future behavior. In fact I'll agree that as a species humans have unprecedented abilities in this regard. But to assign them a supernatural cause when we can see the precursors and prototypes for these very same abilities in lower forms of life is, not just an abuse of philosophy but, just plain silly. The (so far) unexplained is not the inexplicably supernatural.

I base my beliefs on the scientific evidence simply because the "laws" of philosophy don't seem to produce as many results as they do endless arguments over the meaning of words. Your theistic philosophy is simply playing tennis without a net. For example, I don't see that your claim that you have discovered metaphysical "proof" for the soul, has changed the mind of any philosopher on this forum. But if your proof is such an overwhelming "fact" as you say, you should publish it in a peer reviewed journal. Please cite the reference when you have done so- I look forward to it. If you don't publish, please explain why- are real scientists and philosophers conspiring to suppress your revolutionary insights?

Quote:

Originally Posted by **Mariner**

Free will (an effect of the soul) is more factual than anything you ever perceived through your senses -- which includes all of science. That you don't accept the epistemic shortcomings of science is not enough to make them go away. And that you don't realize that logic is required for perception (hence science), instead of the other way around, is not too important either. Logic has epistemic priority over science -- whenever science reaches an illogical conclusion (which is never), *science* should be discarded, not logic. That should be obvious, by the way.

Logic and reason are tools, useful tools for science. Logic works great in math because it's assumptions are self consistent and I might add, unprovable- but that's not the real world. Logic and reason are not infallible when applied to nature. If they were infallible, we wouldn't need science. We could just sit in our armchairs and get knowledge about the universe.

As I have repeatedly said, philosophy and logic cannot trump empirical science in the real world because it's assumptions can never be tested. Science has never been trumped by philosophy because it relies on tests against reality, regardless of our preconceived assumptions. Your metaphysical speculations will always remain beliefs not facts- no matter how many times you repeat them.

Quote:

Originally Posted by **Mariner**

And whether you or lots of other people -- including scientists and philosophers -- disagree with this fact or not is irrelevant. It's not the first mistake ever observed, it's unlikely to be the last. But it is surely a mistake. (Such as saying that theories are "more important" than facts -- which is either muddled thinking or a grab for research grants. Since we test the theory against the facts, facts are clearly more important than the theory. Theories are discarded, facts aren't. You have misread Kuhn, apparently.)

Actually facts are discarded and change constantly as our measurements improve, while our theories evolve. We've had the atomic theory for 200 years- have the facts changed? Yes? Do we still have an atomic theory? Yes.

Your misunderstanding of these basic workings of science tells me that you aren't a practicing scientist. All scientists know that facts, laws and hypotheses are all for the purpose of getting better theories. Theories are the best that science can do and they "bring home the bacon." As for Kuhn:

"Aristotle presented with a moon rock would have no difficulty in discerning it as an object not fundamentally different from terrestrial materials. So much for Thomas Kuhn."

By Probeman (John Donovan)