

From: Deepak Chopra <[REDACTED]>
To: Jeff Epstein <jeevacation@gmail.com>
Subject: Fwd: actual vs probable futures
Date: Fri, 06 Jan 2017 17:06:19 +0000

FYI

Deepak Chopra

2013 Costa Del Mar Road
Carlsbad, CA 92013

New Book: [REDACTED]



Begin forwarded message:

From: Deepak Chopra <[REDACTED]>
Date: January 6, 2017 at 12:03:07 PM EST
To: Ruth Kastner <[REDACTED]>
Cc: "Dick Bierman (RUG)" <[REDACTED]>, "Stanley A. KLEIN" <sklein@berkeley.edu>, Robert Addinall <[REDACTED]>, JACK SARFATTI <[REDACTED]>, David Kaiser <dikaiser@mit.edu>, fred alan wolf <[REDACTED]>, "Stuart R - (hameroff) Hameroff" <hameroff@email.arizona.edu>, Richard Beerman <[REDACTED]>, nick herbert <[REDACTED]>, Daryl Bem <[REDACTED]>, David Chalmers <chalmers@anu.edu.au>, "rouse@maths.ox.ac.uk" <rouse@maths.ox.ac.uk>, Brian Josephson <bdj10@cam.ac.uk>, " [REDACTED] ", Saul-Paul Sirag <[REDACTED]>, Seán Ó Nualláin <[REDACTED]>, " [REDACTED] ", Dean Radin <dradin@noetic.org>, " [REDACTED] "
Subject: Re: actual vs probable futures

The present future and past all exist as possibilities depending on frame of reference.
You need a conscious being localized in space time to experience an actuality .
Actuality of a space time event implies a consciousness experiencing it .
No object can be separated from the experiencing of it . Objects are human constructs for the experience of space time events experienced in consciousness, known in consciousness and made out of consciousness.
Consciousness itself is the formless field of possibilities collapsing within itself as space time events interpreted as objects .
This includes the construct we call a biolocal organism including the human Body/ Mind or even Universe

Deepak Chopra

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New Book: Radicalbeauty.com



On Jan 6, 2017, at 11:47 AM, Ruth Kastner <[REDACTED]> wrote:

Thanks--but this appears to be a model-dependent interpretation of the bearing of experiments. It assumes there are different future worlds (not necessarily the case). There may just be a set of possible future events (with different probabilities).

Also, it appears to ignore the many reported presentiments in which someone finds themselves in a plane crash and then avoids the flight, thereby 'changing the future'.

It is this notion of being able to 'change the future' that unambiguously refutes the idea that there is a single actual determinate future.

And if there is no single actual determinate future, then it isn't 'sending signals back to the present'.

From: Dick Bierman (RUG) <[REDACTED]>
Sent: Friday, January 6, 2017 4:17 AM
To: Ruth Kastner
Cc: Stanley A. KLEIN; Robert Addinall; JACK SARFATTI; David Kaiser; fred alan wolf; Deepak Chopra; [REDACTED]; Stuart R - (hameroff) Hameroff; Richard Beerman; nick herbert; Daryl Bem; David Chalmers; [REDACTED] Brian Josephson; [REDACTED]; Saul-Paul Sirag; Seán Ó Nualláin; [REDACTED]; Dean Radin; [REDACTED]; [REDACTED]
Subject: actual vs probable futures

The question where the anomalous correlations refer to, either to the to be actualized future or to the most probable future, can be tested empirically in a psi-experiment. This is done by using 'biased' random decisions to select the future target. Say, rather than use a RNG with equiprobabilities for head or tails for all trials, for some trials (of course unknown to the participant) one uses a RNG that produces on the average twice as much tails. Now one has to look at those trials with biased probabilities where the actual outcome was the one that had the lowest probability to come up. Is the participant still doing fine in terms of direct hits then obviously her predictions had to do with the actual future. If the participant now has much more misses she was predicting the outcome that was most probable.

I think Dean Radin has done experiments along these lines and if my memory serves well he found that the paranormal predictions were predicting the most probable future.

I haven't heard from any progress along these lines since, which worries me a bit.

But in any case this is a very simple experiment and everybody could do this.

Dick

(PS Implementing a biased RNG is easy. One uses a true RNG to get a byte. Rather than using [0,127] -> tails and [128,255]-> head, one uses other intervals for instance [0,63] -> tails, effectively creating a less probable outcome for tails.)

On Jan 5, 2017, at 9:58 PM, Ruth Kastner <[REDACTED]> wrote:

Of course, I'm happy to look at any data.

But as long as the 'future' can be changed, which has to be admitted by anyone who takes seriously precognition and subsequent changing of catastrophic predicted events, clearly **there is no single actual future**; rather, there are just possible futures. And sensing possibilities is a completely distinct thing from 'receiving retrocausal signals (or influences) from THE future'.

If there are just possible processes or events that might eventually be experienced, then sensing such processes or events has to be decoupled from talk about 'retrocausation' or 'violations of QM'. That's my main point.

From: Stanley A. KLEIN <sklein@berkeley.edu>
Sent: Thursday, January 5, 2017 3:07 PM
To: Ruth Kastner
Cc: Dick Bierman; Robert Addinall; JACK SARFATTI; David Kaiser; fred alan wolf; Deepak Chopra; [REDACTED]; Stuart R - (hameroff) Hameroff; Richard Beerman; nick herbert; Daryl Bem; David Chalmers; [REDACTED] Brian Josephson; [REDACTED]; Saul-Paul Sirag; Seán Ó Nualláin; [REDACTED]; Dean Radin; [REDACTED]; [REDACTED]
Subject: Re: I'm not 'denying anyone's logic' unless it's flawed.

Ruth, Many thanks for your two comments. I'll respond to both:

1) I was in error to only use the word "quantum mechanics". I have been trying to remember to say QM/QED. By that I mean QED together with the measurement aspects of QM. QED is important for two reasons: a) QED forbids sending **signals** (not influences) backwards in time. b) QED is all about atoms (electron, protons, neutrons) and photons. That's the relevant stuff that brains are made of. No need to include neutrinos, quarks and such for brain operation. Telepathy for example can be ruled out because the electric field emitted by brains are very close to zero. The magnetic fields emitted by brains are slightly larger but still WAY too weak to be used for communication. The calculations are not that hard to do. We could discuss those calculations when we're together in SF in a few weeks.

2) You said: "situations involving precognition often involve changing aspects of the future that was glimpsed. **That means there is simply NO SET, DETERMINATE FUTURE!** If there is no single determinate future, then you can't say 'The future is sending signals back to the present'."

The sort of precognition that is able to be studied scientifically are experiments with many hundred of trials. Bem needed a huge number of subjects with each subject doing lots of trials. And always there is a real (quantum) random number generator or a pseudo RNG as are found on all computers. That is the sort of data with we need to discuss for studying the sort of precognition that are typically done in laboratories by folks like Radin and Bierman. So what I'm saying is that we need to develop a vocabulary for distinguishing the different sorts of data. Maybe we could say Lab_psi vs event_psi. In any case we do need to come up with words that can reduce the confusion of very different categories of data. As Dick pointed out event_psi tend to be poorly controlled.

Stan

On Thu, Jan 5, 2017 at 10:41 AM, Ruth Kastner <[REDACTED]> wrote:

Thanks, but there are still 2 big problems with these proposed definitions:

1st: there are no 'events that violate present QM' in any experiments.

Rather, *there are data that are INTERPRETED as violating QM*, based on various assumptions and models, which apparently are not recognized as part of an optional conceptual framework.

Now it may turn out to be true that the events do violate QM; but THAT HAS NOT BEEN ESTABLISHED. It's an interpretive claim. In particular it appears to depend on modeling human choices/responses as eigenvalues of quantum observables, which is almost certainly wrong. This is what I'll be discussing at the upcoming CIIS conference.

2nd: situations involving precognition often involve changing aspects of the future that was glimpsed. That means there is simply NO SET, DETERMINATE FUTURE!

If there is no single determinate future, then you can't say 'The future is sending signals back to the present'. Because there are obviously many different possible future events, and they cannot all fit into a single 3+1 spacetime!

That is one thing that is borne out if one takes seriously any of the many reported cases of precognition with subsequent changing of forecasted events.

Everyone keeps ignoring this point. If it continues to be disregarded, I'll have to sign off of any further discussion on this topic, since it's a crucial point and there won't be any progress unless it is addressed.

(The obvious solution to problem #2 is to allow that the future is a set of quantum possibilities that humans can sense (to greater or lesser degree), and cease using terms like 'retrocausation' in a sloppy, ambiguous, and probably wrong way.)-RK

From: Stanley A. KLEIN <[REDACTED]>
Sent: Thursday, January 5, 2017 10:32 AM
To: Dick Bierman
Cc: Robert Addinall; JACK SARFATTI; Ruth Elinor Kastner; David Kaiser; fred alan wolf; Deepak Chopra; [REDACTED]; Stuart R - (hameroff) Hameroff; Richard Beerman; nick herbert; Daryl Bem; David Chalmers; [REDACTED]; Brian Josephson; [REDACTED]; Saul-Paul Sirag; Seán Ó Nualláin; [REDACTED]; Dean Radin; [REDACTED]; [REDACTED]

Subject: Re: I'm not 'denying anyone's logic' unless it's flawed.

Many thanks Dick for your awesome posting. For those on this list who aren't familiar with Dick Bierman, he is one of the world's leading investigators in parapsychology. The email he just sent should be required reading by anyone interested in psi. Dick outlines the care that is needed in dealing with psi. I'll copy one of his paragraphs:

"James Spottiswoode took it upon himself to build a massive presentiment set-up using the simultaneous measurement of the skin conductance of many subjects presented with emotional or non-emotional stimuli. If the effect size for one participant would be a typical 0.25 then in standard signal considerations using 64 participants and combining their signals to one would result in an effect size of 2.0. That is an effect that doesn't need any statistical analysis, observable by the naked eye and certainly usable to predict the near future. Turns out that the whole anomaly disappeared. This fits well with the idea that these anomalous correlations have nothing to do with classical signals. If that would be the case, the psi researchers would have created a robust replicable experiment, a long time ago. (or would earn tons of money as a simple simulation of a casino experiment using reported effect sizes, shows)."

The item I made bold is a nice summary of what Dick is saying. He isn't saying that all psi is wrong, I think he is saying many of the experiments that have been put in the precognition category are being misunderstood. Dick, am I correct? Let me make several comments on this topic.

1) I strongly believe we need to have better definitions of some of the words we use. I suggest that the word "precognition" be used only for the sort of event that violates present quantum mechanics that forbids sending signals backwards in time. That would include Bem or casino type experiments where controls for clairvoyance and psychokinesis are in place. Those controls weren't present in the Bem experiment as Bem himself pointed out in his article. The word "retrocausation" would be used for events such as standard quantum mechanics entanglement experiments where faster than light, or backwards in time influences easily take place. The big distinction here is between sending signals vs. influences backwards in time. I suspect that many of Jack's examples involve influences.

2) In preparing for the Foundations of Mind conference on Jan 27 celebrating Walter Freeman's 90th birthday I've started reading Walter's chapter titled: "Consciousness, Intentionality, and Causality", published in the book "Does Consciousness Cause Behavior?" edited by Pockett, Banks and Gallagher. Walter refers to brain mechanisms, called "efference copy" and "corollary discharge" whereby action aspects of the brain sends signals to various other parts of the brain to prepare for the future actions. These retrocausation signals are able to account for many otherwise surprising effects like why doesn't the world seem to jump around when the eyes jump around. I am bothered by calling these signals retrocausation signals, but that is what some people have been calling them. I hope it is clear that this sort of retrocausation is standard quantum mechanics and even standard neuroscience. It has nothing to do with precognition where the future event is carefully randomly selected. Bierman makes this distinction very nicely.

3) It would be nice if we could start a thread on Foundations of Mind with the title "Precognition vs Retrocausation". It would involve a discussion of the controls needed for data to be called "precognition". The discussions would also clarify the important distinction of "signals" from "influences".

Dick, thanks again for the clarity and importance of your posting.

Stan

On Thu, Jan 5, 2017 at 5:29 AM, Dick Bierman <[REDACTED]> wrote:

Before the argument of avoiding plane crashes is going to constraint the theoretical options one should realize that we have no idea how many people in the world have some anxious feelings or a bad dream before they fly, and act upon this while the crash doesn't happen. And they probably do not talk about it or publish it. So even from a statistical point of view the statement about people precognizing their future plane crash is not settled (to say the least).

But assuming for a moment that indeed the number of these 'coincidences' is significantly larger than can be expected by chance then one should realize that it may very well be the feedback of the disaster to the person that avoided the crash is so emotional that this feedback is actually the event that was felt as a kind of presentiment.

Someone once asked me if we could use physiological measurements on board of a plane to develop an early warning system.

First of all that would require a considerable improvement of the signal/noise ratio and if we are dealing with a true signal such should be possible (see below).

Presentiment at least with current dependent variables like skin conductance may give you a second or two advanced warning which might help in cases of near misses.

But other fatal scenario's wouldn't be avoided.

James Spottiswoode took it upon himself to build a massive presentiment set-up using the simultaneous measurement of the skin conductance of many subjects presented with emotional or non-emotional stimuli. If the effect size for one participant would be a typical 0.25 then in standard signal considerations using 64 participants and combining their signals to one would result in an effect size of 2.0. That is an effect that doesn't need any statistical analysis, observable by the naked eye and certainly usable to predict the near future.

Turns out that the whole anomaly disappeared. This fits well with the idea that these anomalous correlations have nothing to do with classical signals. If that would be the case, the psi researchers would have created a robust replicable experiment, a long time ago. (or would earn tons of money as a simple simulation of a casino experiment using reported effect sizes, shows)

My advice to the theoretical physicists: please take the data of parapsychology not so serious that it constraints possible theoretical models. Rather use the data to trigger new ideas in your creative processes.

Dick

On Jan 5, 2017, at 8:49 AM, Robert Addinall <[REDACTED]> wrote:

Hmm... reports that precognitions are used to avoid events like plane crashes, as mentioned below by Ruth, does make it necessary to think about the theories being passed around in detail. Taking just such examples alone Ruth's theory seems as parsimonious as any other explanation.

However I think that Jack's theory might accomodate apparent "changing" of the future. Only those people who successfully precognate the plane crash fully access the closed timelike curve illustrated in Jack's picture below. The others still get on the plane and die - after all, the planes that go down are never totally empty. So the ones who avoid the crash get the intuition to avoid it because they have avoided it in the future, and the CTC is self-consistent.

This type of example still makes me wonder if we have to have more than 3+1 dimensions in the universe, because I tend towards a block world view and a "block multiverse" might get around the problem of having a block world with different choices, but would not be as un-parsimonious as

Tegmark's level 3 multiverse... although I do not dispute Jack's assessment that I am simply speculating here. I think that it's useful to speculate though.

From: [REDACTED]
Sent: January 5, 2017 2:17 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: [REDACTED] not 'denying anyone's logic' unless it's flawed.

<unknown.jpeg>

On Jan 4, 2017, at 10:49 PM, JACK SARFATTI <[REDACTED]> wrote:

Forget the Libet experiment Ruth, Stan,... describe below. It's overly complicated obscuring the essential point.

Genuine precognitions like those reported by Russ Targ and Dale Graf are

1) non-statistical connections between non-random time like separated complex patterned events P and F

In terms of a fiber bundle.

--- P --- F --- > time (base space is a classical world line here in this toy model)

P and F are fibers having complicated internal structure (long qubit/c- bit strings corresponding to the non-random qualia/beables).

For example P may be a complex EEG classical electromagnetic beable pattern corresponding to a pleasure/pain response.

F would then be a complex classical electromagnetic visual pattern corresponding to an erotic/violent image.

If every time there is a trial run (here there is a statistical ensemble) we find the strict correlation (idealized gedankenexperiment)

|Ppleasure EEG>|Ferotic image> + |Ppain EEG>|Fviolent image>

The obvious explanation is that F is a future cause whose past effect is P

These two BEABLE events are connected by a mental pilot history wave from P to F and a mental pilot destiny wave from F back to P.

There are two ACTION-REACTIONS

The back-from-the-future destiny wave on P causes the EEG at P. That is QM ACTION of destiny pilot wave on brain beable at P

However, the shape (bit pattern) of destiny wave acting at P was created by the PQM REACTION of the IMAGE EM beable at F.

The time-reverse process on the history wave also happens - and the two form a self-organizing creative consistent time loop.

So, to summarize, we have these LOCALLY NON-RANDOM QM ACTIONS and PQM REACTIONS.

QM ACTION of DESTINY WAVE (F → P) on P EEG BEABLE

PQM REACTION of F BEABLE on DESTINY WAVE at F

&

PQM REACTION of P BEABLE on HISTORY WAVE (P → F)

QM ACTION of HISTORY WAVE on BRAIN BEABLE at F

Therefore, the BRAIN BEABLE AT F has both a QM HISTORY ACTION AND A CLASSICAL STIMULUS FROM DEAN RADINS RNG that makes a PQM REACTION on the DESTINY WAVE.

Similarly, the BRAIN BEABLE at P has both a QM DESTINY ACTION and a PQM HISTORY REACTION.

It is the LOCALLY NON-RANDOM COMPLEX PATTERNS that make this a PQM effect beyond any QM ENTANGLEMENT form of explanation.

In QM experiments there are always locally random patterns that hide the non-random entanglement prior to analysis in hindsight - that is the operational meaning of "no-signaling" for the linear unitarity Born rule of QM. One can see that clearly in Henry Stapp's EPR photon pair analysis where locally random prob = 1/2 at each end even though there is a nice e.g. $\cos^2(\theta)$ entanglement pattern where θ is the angle between the polarizers.

On Jan 4, 2017, at 6:32 PM, Ruth Kastner <[REDACTED]> wrote:

I was able to dig around and find a summary of the purported evidence:

"

A stimulus is delivered by an inserted electrode directly to the *cortex* of a subject, beginning at T . It takes about 0.5 sec after the beginning of the stimulation-train before there occurs "neuronal adequacy", a sufficient physical condition, for the associated conscious sensation - there is this 0.5 sec delay before neuronal adequacy is achieved. A peripheral stimulus, say to the skin of the hand, is given later than the beginning of the direct cortical stimulation, say at $T+0.2$ or $T+0.3$ sec. This stimulus, like the direct cortical stimulation, takes about 0.5 sec to produce neuronal adequacy for its associated conscious sensation. The peripheral stimulus, by way of a specific projection pathway, very quickly produces - in about only 15 msec - a certain primary cortical response, regarded by Libet as a "time-marker". There is no such primary response with the direct cortical stimulation.

The subject is asked in what order he or she had the two conscious experiences, one of the earlier direct cortical stimulation, or one of the later peripheral stimulus. The subject reports, paradoxically, that the conscious experience of the later skin stimulus came *before* the conscious experience for the earlier direct cortical stimulation. " (<http://www.ucl.ac.uk/~uctytho/libet2.htm>)

But there is great controversy about the interpretation of this data, interpretation which depend on various mind/brain theories. I don't see any unambiguous evidence of retrocausation--i.e. that does not depend on a particular theory of mind/brain interaction. Of course, it's interesting, and there is nothing wrong with proposing a possible retrocausal model to explain the data. But the possibility of a retrocausal model in service of accounting for the data is not at all the same as showing that the data are *prima facie* evidence of retrocausation.

Also, note that the term 'sufficient condition' does *not* mean that such a condition is a requirement (not a necessary condition)--which means, if they really used the term correctly, that in principle a conscious sensation could occur in the absence of that 'neuronal adequacy' condition.

For example, a sufficient condition for wet grass is that it rain, but it is not necessary. I could turn on a sprinkler. (Also note the peripheral fast primary cortical response which seems to be a possible pathway for earlier sensation of the peripheral stimulus anyway--obviously I'm no neuroscientist but I have to wonder about whether this was overlooked in accounting for the findings.)

Most importantly: remember that any precognitive perceptions that 'partially come true' i.e., are subject to alteration based on warning (as in avoiding a plane crash) are evidence that the future is NOT fixed/determinate. Nobody seems to be engaging with this basic point, which is crucial to the ontological question of whether there really is retrocausation understood as the determinate future signalling to the present or past.

Now, if all we mean by 'retrocausation' is that people can pick up on possible future events, then I'm in agreement. But if that's the case, I don't think 'retrocausation' is an appropriate word for it. "Sub-empirical influences" would be more accurate.

-RK

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