

Re: twins versus quanta collapse

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- *From:* "N:dlzc D:aol T:com \((dlzc)\)" <dlzc@xxxxxxx>
 - *Date:* Mon, 26 Mar 2007 17:47:13 -0700
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Dear beda pietanza:

"beda pietanza" <beda-pietanza@xxxxxxxx> wrote in message
<news:1174939618.434774.270320@xx>

N:dlzc D:aol T:com (dlzc) ha scritto:

Dear beda pietanza:

"beda pietanza" <beda-pietanza@xxxxxxxx> wrote in message
<news:1174781492.834428.307320@xx>

....

What is the prove that the linking takes place after the measurement and not simply (a priori) from the common source ??????????

I apologize for the redundancy and thanks for the attention.

I wish you had read what I wrote below. Because you again make the same mistake.

Two streams of entangled particles, sent "left" are spin up, sent "right" are spin down.

I don't mean to correct you but myself: as far as I understand the two streams of particles should have the spin randomly changing.

There is no need to allow this. Entangled particles can be "sorted", and this makes the apparatus (and detection) more simple, more definitive.

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The "left" stream is passed into a shielded, distant device to flip the spin on the particle stream contained within it.

flipping in this case is tantamount of measuring because doing measuring and flipping in a row only the first would produce the collapse of the outcome.

And the outcome is detectable a finite distance away, and occurs the same distance (within our ability of measure) from the branch as the "flipper" acts on one stream.

Far away in the "right" stream, for no apparent reason, and only when / if the "left" stream is flipped, the other does too.

it comes to the same question: is the measurement (with or without the subsequent flipping) on one the path that makes the change on the other or all was set from the start at generation of the entangled couples at the source ????

Turn the flipping off and neither particle stream flips. The actor is *now*, the entanglement was *then*.

I resume these statements:

a) Entanglement is the correlation between two particles/photons generated from a single event by a single source.

It is possible to have multi-body entanglement. The process of entanglement is not necessarily an instantaneous process, and may require multiple steps.

b) The collapse of the wave function is the outcome of a measurement done on a single particle/photon that fixes, from a range of possible outcomes, just the one obtained.

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The collapse could be initiated by another process (such as spin flipping).

c)The collapse of the wave function a) is instantly transferred to the other particle/photon.

Please correct, comment or integrate

This is correct. The point is, neither particle is ever "really" separated from the other. An entangled system is a system unto itself, and our impressed "separation" says something about *us*, and not so much about the entangled system.

David A. Smith

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