Re: twins versus quanta collapse

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- *From*: "beda pietanza" <beda−pietanza@xxxxxxxxx>
- *Date*: 26 Mar 2007 13:06:58 −0700

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

> Dear beda pietanza:
>
> "beda pietanza" <beda−pietanza@xxxxxxxxx> wrote in message
> news:1174781492.834428.307320@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
>
> > N:dlzc D:aol T:com (dlzc) ha scritto:
> >
> > ...
> >
> > > Not this bothers me about QM, but the
> > > collapse of
> > > wave function: two entangled photons where
> > > the
> > > detection of A determine the outcome of B:
> > > this, if
> > > really happens,
> >
> > It does. It does FTL... and near as we can measure,
> > instantaneously.
>
> Now we got to the point:
>
> premise:
> Along path A a string of entangled photons is detected
> indipendently, we register a sequel of outcomes.
> After many attempts the statistic fits the wave function
> probability distribution as expected.
>
> Along path B a string of entangled photons is detected,
> many times, and this, also, fits the expected statistic.
> .....

> the checking:
>
> Now along path A a sequel of photons is detected and registered; the sequel of path B, detected afterwards some distance away, results anchored to the sequel of photons A.
>
> And of course viceversa: if we detect along path B we determine the outcome of path A.
>
> And this all the times we try.
>
> conclusion:
>
> Our immediate conclusion must be that the sequel of photons A and the sequel of photons B were generated as such from the common source.
>
> If you say instead, that is the act of measurement on A that determine immediately (and a posteriori) the outcome of B, you exclude that they were prefixed from the moment of emission, then you have to prove it.
>
> 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.

> 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.

> 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 ????

I resume these statements:

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

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

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

Please correct, comment or integrate

thanks again

beda pietanza

> > best regards
> >
> > beda pietanza
> >
> > ps. on the spacetime not rilevant we can discuss after we
> > settle the above question.
>
> It is very relevant, since you assume "separation", "difference",
> and "isolation" when there *is* none for quantum effects.
>
> > > then there must be a hidden cause that links
> > the
> > two since the generation of the two
> > entangled
> > photons, the detection of one of the two

> should not
> have effect on the other aside to show how
> the
> entanglement has fixed the two from the
> begin.

I would submit the "hidden cause" is our forgetting the wave nature of all quantum objects. Because we assume we have "separated" the two objects, this bizarre behavior springs up. Spacetime is only a problem for macroscopic systems... quantum
objects don't care for / about spacetime. "Separation" is just
us measuring ourselves again, beda.

David A. Smith

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