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Is beta-decay physics in a mirror the same as physics outside of a mirror?

- This was a very odd notion and they only pointed out what tests might be done
- All such tests involve finding some aspect of a process which pick out a direction in space...and then ask what happens if you reverse the signs of all space and momentum quantities in the model - like doing the experiment in a mirror

Co^{60} is an isotope which beta decays and possesses a spin. (Define the spin direction by a Right Hand rule: fingers in the rotational direction, thumb is the spin direction.)

- Suppose that betas are emitted preferentially along the spin direction

Then, what would this look like in a mirror, where only space coordinates are reversed?

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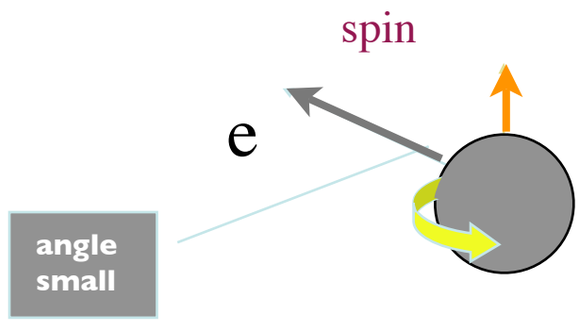

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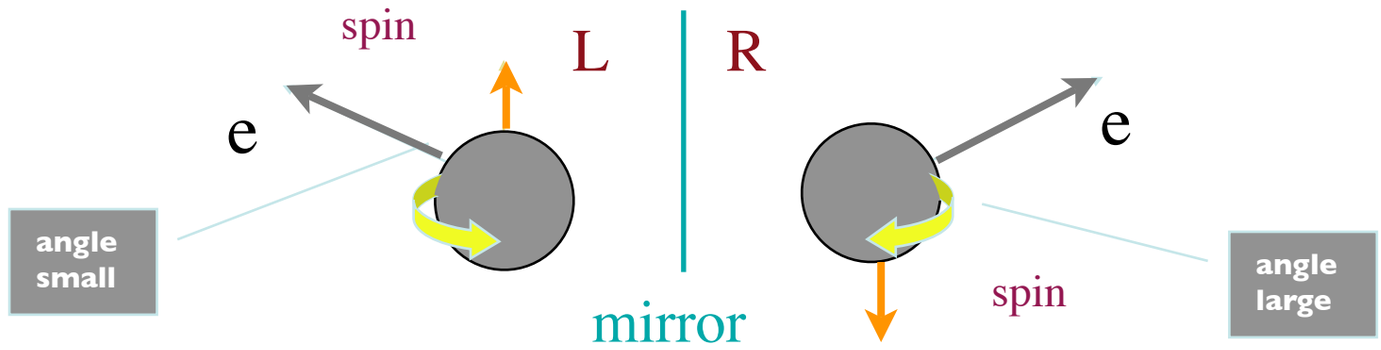

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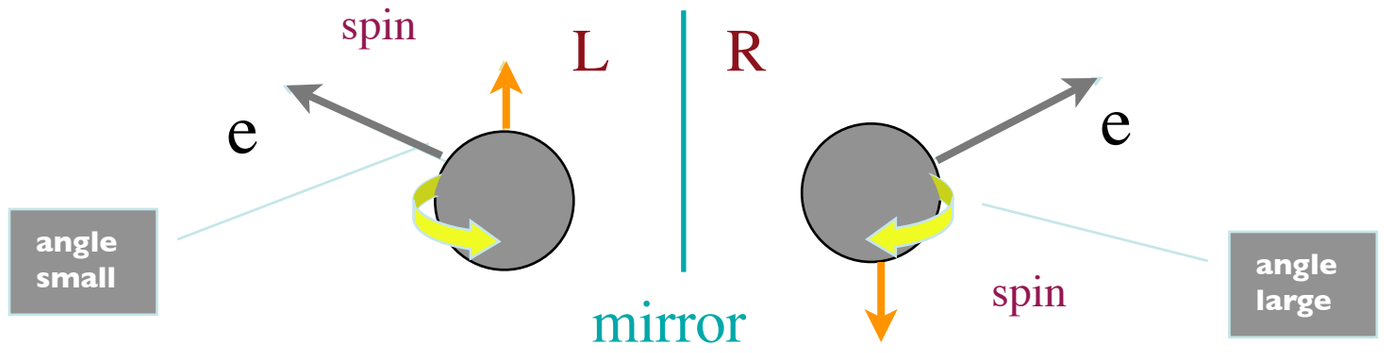

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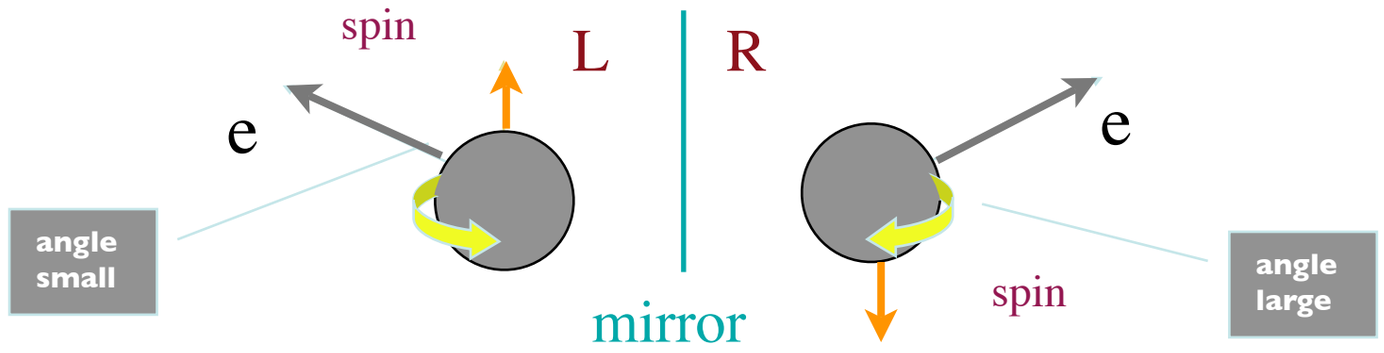

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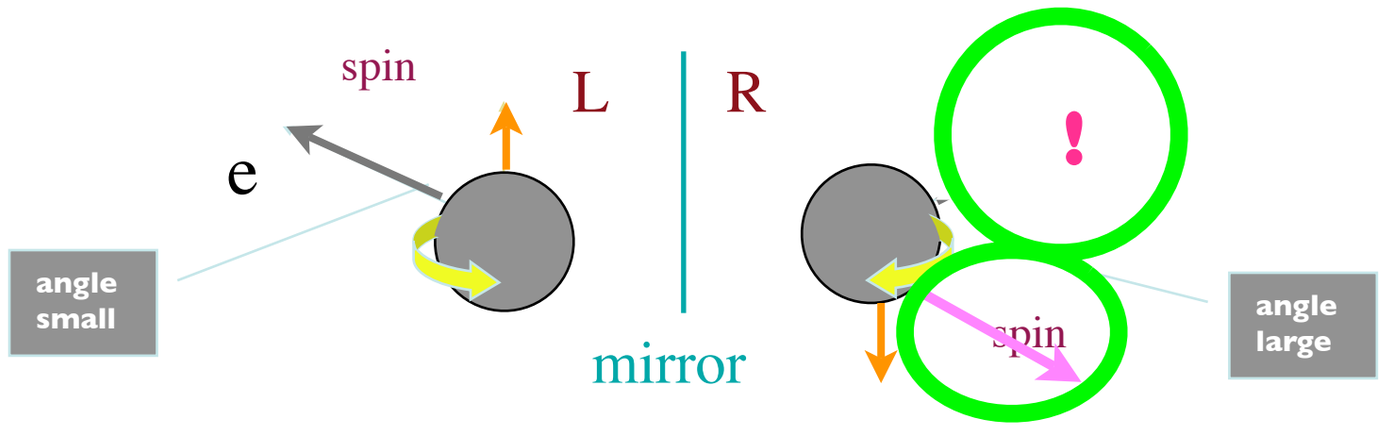

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The beta's continue to be emitted associated with the nuclear spin: parity is not conserved in the weak interaction!

This was a great shock…it was expected that all physics would behave like E&M with respect to parity… where does it come from?
Was the universe created left-handed?