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entanglement autodistillation from baryon decays

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We study the spin-entangled mixed state of a spin-$\frac{1}{2}$ baryon-antibaryon pair produced in the process $e^+e^- \to J/\psi, \psi' \to B\bar{B}$. We show that the spin entanglement of the system can increase after the process that a baryon decays to a spin-$\frac{1}{2}$ baryon and a spin-0 meson, an anti-baryon decays to a spin-$\frac{1}{2}$ anti-baryon and a spin-0 meson.

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