On the regenerative nature of the extremal particles of supercritical contact processes in dimension one

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We study one-dimensional contact processes with symmetric and finite-range interaction on the set of survival. We show a conceptual proof of that the rightmost descendant of a particle which survives (i.e. has descendants for all times) cannot be surpassed by any of the descendants of initially to its left particles with positive probability. The approach taken exploits symmetry for leaning upon coupling arguments along with a simple consequence of convergence to equilibrium. We also show that this suffices for giving an elementary proof of the regenerative structure of the extremal particles of these processes.