Dynkin's isomorphism Theorems revisited

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Dynkin's isomorphism Theorem as well as its derivatives, are identities in law connecting, most of the time, the local time process of a Markov process to permanental processes. In spite of their various applications, they still remain identities in law without simple pathwise interpretation. We will present a rereading of the so-called « generalized second Ray-Knight Theorem » and Sznitman's isomorphism Theorem.