## Derivatives of rate-independent evolutions

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In rate-independent evolutions, the solution depends on the forcing in a rateindependent manner, that is, if we transform the forcing w.r.t. time, the corresponding solution transforms in the same way. We discuss the question whether this operator (forcing to solution), which is not smooth, nevertheless possesses derivatives of some kind. We show that in a certain basic situation - equivalently described by an evolution variational inequality, a sweeping process or an energetic system - the directional derivative exists and is characterized by a variational system.