

# Event Dependence and Heterogeneity in Duration Models: The Conditional Frailty Model

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We introduce the conditional frailty model, an event history model that separates and accounts for both event dependence and heterogeneity in repeated events processes. Event dependence and heterogeneity create within-subject correlation in event times thereby violating the assumptions of standard event history models. Simulations show the advantage of the conditional frailty model. Specifically they demonstrate the model's ability to disentangle the sources of within-subject correlation as well as the gains in both efficiency and bias of the model when compared to the widely used alternatives, which often produce conflicting conclusions. Two substantive political science problems illustrate the usefulness and interpretation of the model: state policy adoption and terrorist attacks.