

*THEOREM 3.2. The operation  $DELETE(R_u, \mathcal{E}_D)$  is irrelevant to the derived relation defined by  $E = (A, R, \mathcal{E})$ ,  $R_u \in R$ , if and only if the condition  $\mathcal{E}_D \wedge \mathcal{E}$  is unsatisfiable.*