1163-03-366 **Katalin Bimbó*** (bimbo@ualberta.ca), University of Alberta, Department of Philosophy, Assiniboia Hall 2–40, Edmonton, Alberta T6G2E7, Canada, and **J. Michael Dunn** (dunn@indiana.edu), Luddy School of Informatics, Computing and, Engineering, and Department of Philosophy, Indiana University, 901 East Tenth Street, Bloomington, IN 47408. *Entailment and (restricted) mingle.*

The logic of entailment ($E_\to$) was formulated as a sequent calculus by Kripke (*Journal of Symbolic Logic* 24 (1959):324). RM, the (full) logic of relevant implication R with (M), the mingle axiom $A \to (A \to A)$ has been thoroughly investigated in the literature. $E_\to$ can be (non-equivalently) extended with (M) or $(\overrightarrow{M})$, the restricted mingle axiom $(A \to B) \to ((A \to B) \to (A \to B))$. Anderson and Belnap (*Entailment. The Logic of Relevance and Necessity*, 1975, p. 94) posed the question (attributing it to S. McCall) whether $E_\to = R_\to \cap E\overrightarrow{M}_\to$. We use sequent calculus formulations of these logics to prove that the set of theorems of $E_\to$ is indeed the intersection of the set of theorems of relevant implication and that of $E\overrightarrow{M}_\to$. We also consider a version of the problem with (M), and we use a counter example to prove that $E_\to \neq R_\to \cap EM_\to$. (Received September 04, 2020)