If $F \cap I = \emptyset$, then $T$ is a congruence and $\bar{T}$ is an extension of $T$.

Suppose $F \cap I \neq \emptyset$, let $e \in F \cap I$, $x \leqq e \leqq y$. Denote $\tilde{d} = \bar{d} \vee e$, $\tilde{c} = \bar{c} \wedge e$. Clearly $\tilde{c} \leqq \tilde{d}$, $\tilde{c}, \tilde{d} \in I \cap F$. Then $\bar{z} \wedge \tilde{c} = \bar{z} \wedge \bar{c} \wedge e = x$, $y \geqq \bar{z} \vee \tilde{d} = \bar{z} \vee \bar{d} \vee \vee e \geqq (\bar{z} \wedge \bar{d}) \vee (\bar{z} \wedge d) \vee e = y$, thus $\bar{z}$ is a relative bicomplement of $\langle \tilde{c}, \tilde{d} \rangle$ in $\langle x, y \rangle$ in $D$. But $\langle \tilde{c}, \tilde{d} \rangle$ cannot have a relative bicomplement in $\langle x, y \rangle$ in $L$ for if $b$ were such a bicomplement, $x = x \vee x = x \vee (b \wedge \tilde{c})$, $y = \tilde{d} \vee b = \tilde{d} \vee (b \wedge y)$, $[x \vee (b \wedge \tilde{c}), \tilde{d} \vee (b \wedge y)] \in T \Rightarrow [x, y] \in T$. Consequently, $L$ is not closed under relative bicomplements. Q.E.D.

An immediate consequence of Propositions 2, 3, 4 is

**Theorem.** *Let $L$ be a sublattice of a distributive lattice $D$. $[D, L]$ has* TEP *if and only if $L$ is closed in $D$ under relative bicomplements.*

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*Author's address:* 602 00 Brno, Sady Osvobození 5.