Inference at $*$
of proof for Lemma connex_iff_trichot:

$\vdash \forall T$:Type, R:$(T \to T \to \mathbb{P})$.
$(\forall a, b{:}T.\ \mathrm{Dec}(R(a,b)))$
$\Rightarrow (\mathrm{Connex}(T;x,y.R(x,y))$
$\quad \iff \{\forall a, b{:}T.$
$\qquad \mathrm{strict\_part}(x,y.R(x,y);a;b)$
$\qquad \vee\ \mathrm{Symmetrize}(x,y.R(x,y);a;b)$
$\qquad \vee\ \mathrm{strict\_part}(x,y.R(x,y);b;a)\})$
by Unfold ‘guard‘ 0

1:

$\vdash \forall T$:Type, R:$(T \to T \to \mathbb{P})$.
$(\forall a, b{:}T.\ \mathrm{Dec}(R(a,b)))$
$\Rightarrow (\mathrm{Connex}(T;x,y.R(x,y))$
$\quad \iff (\forall a, b{:}T.$
$\qquad \mathrm{strict\_part}(x,y.R(x,y);a;b)$
$\qquad \vee\ \mathrm{Symmetrize}(x,y.R(x,y);a;b)$
$\qquad \vee\ \mathrm{strict\_part}(x,y.R(x,y);b;a)))$
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http://www.nuprl.org/FDLcontent/p0_942988_/p121_80447_{connex_iff_trichot}.html