Inference at $*$ 1 1
of proof for Lemma dec_iff_ex_bvfun:

1. T : Type
2. E : $T \to T \to \mathbb{P}$
3. g : $\forall x, y{:}T.\ (E(x,y)) \vee (\neg(E(x,y)))$

$\vdash \forall x, y{:}T.\ (\uparrow$case $g(x,y)$ of inl(a) => tt | inr(b) => ff) $\iff (E(x,y))$
by ((RepD)
CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n
)) (first_tok :t) inil_term)))·

1:

4. x : T
5. y : T

$\vdash (\uparrow$case $g(x,y)$ of inl(a) => tt | inr(b) => ff) $\iff (E(x,y))$
.