Inference at $*$ 1 2
 of proof for Lemma wellfounded_functionality_wrt_iff:

1. T_1 : Type
2. T_2 : Type
3. r_1 : $T_1 \to T_1 \to \mathbb{P}$
4. r_2 : $T_2 \to T_2 \to \mathbb{P}$
5. $T_1 = T_2$
6. $\forall x,y{:}T_1.\ r_1(x,y) \iff r_2(x,y)$

$\vdash$ WellFnd{i}(T_1;x,y.$r_1(x,y)$) $\Leftarrow$ WellFnd{i}(T_2;x,y.$r_2(x,y)$)
 by ((BackThruLemma ‘wellfounded_functionality_wrt_implies‘)
 CollapseTHENA (
  (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

$\vdash T_2 = T_1$

2:

$\vdash \forall x,y{:}T_2.\ \{r_2(x,y) \Leftarrow r_1(x,y)\}$

.

---

http://www.nuprl.org/FDLcontent/p0_359040_/p121_96059_{wellfounded_functionality_wrt_iff}1_2.html