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

1. T : Type
2. R : $T \to T \to \mathbb{P}$
3. EquivRel(T;x,y.$R(x,y)$)
4. a : T
5. a' : T
6. b : T
7. b' : T
8. $R(a,b)$
9. $R(a',b')$
10. $R(a,a')$

$\vdash R(b,b')$

by ((RepUnfolds "equiv_rel refl sym trans" 3)
CollapseTHEN ((Auto_aux (first_nat 1:n
) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

3. $\forall a{:}T.\ R(a,a)$
4. $\forall a, b{:}T.\ R(a,b) \Rightarrow R(b,a)$
5. $\forall a, b, c{:}T.\ R(a,b) \Rightarrow R(b,c) \Rightarrow R(a,c)$
6. a : T
7. a' : T
8. b : T
9. b' : T
10. $R(a,b)$
11. $R(a',b')$
12. $R(a,a')$

$\vdash R(b,b')$

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_81216_{equiv_rel_self_functionality}1_1.html