```
lang_rel_tran  THM

⊢  ∀L:LangOver(A). Trans x,y:A*. x L-induced Equiv y  by UnivCD
|
1. A : Type
2. L : LangOver(A)
⊢  Trans x,y:A*. x L-induced Equiv y
| by (Unfolds [‘trans‘;‘lang_rel‘] 0) THEN (Reduce 0)
|
⊢  ∀a,b,c:A*.
|  (∀z:A*. L(z @ a) ⟺ L(z @ b)) ⇒
|  (∀z:A*. L(z @ b) ⟺ L(z @ c)) ⇒ (∀z:A*. L(z @ a) ⟺ L(z @ c))
| by Unfold ‘languages‘ 2
|
|\
| 2. L : A*→Prop
| 3. a : A*
| 4. b : A*
| 5. c : A*
| 6. ∀z:A*. L(z @ a) ⟺ L(z @ b)
| 7. ∀z:A*. L(z @ b) ⟺ L(z @ c)
| 8. z : A*
| 9. L(z @ a)
| ⊢  L(z @ c)  by RWW "6 7" 9
|
.\
. 2. L : A*→Prop
. 3. a : A*
. 4. b : A*
. 5. c : A*
. 6. ∀z:A*. L(z @ a) ⟺ L(z @ b)
. 7. ∀z:A*. L(z @ b) ⟺ L(z @ c)
. 8. z : A*
. 9. L(z @ c)
. ⊢  L(z @ a)  by RWW "6< 7<" 9
END
```