Inference at $*$ 2 2 1
of proof for Lemma before-adjacent:

1. T : Type
2. T List
3. u : T
4. v : T List
5. $\forall x$, y:T.
   no_repeats(T;v)
   $\Rightarrow$ adjacent(T;v;x;y)
   $\Rightarrow$ ($\forall z$:T. z before $y \in v \Rightarrow (z$ before $x \in v \vee (z = x)))$
6. x : T
7. y : T
8. no_repeats(T;v)
9. $\neg(u \in v)$
10. $0 < \|v\|$
11. adjacent(T;v;x;y)
12. z : T
13. z before $y \in [u$ / $v]$
14. $\forall z$:T. z before $y \in v \Rightarrow (z$ before $x \in v \vee (z = x))$

$\vdash z$ before $x \in [u$ / $v] \vee (z = x)$
by ((((RWO "cons_before" (-2))
CollapseTHENA (Auto$\cdot$))$\cdot$)
CollapseTHEN (D (-2)$\cdot$))$\cdot$

1:

13. $z = u$ & $(y \in v)$
14. $\forall z$:T. z before $y \in v \Rightarrow (z$ before $x \in v \vee (z = x))$

$\vdash z$ before $x \in [u$ / $v] \vee (z = x)$

2:

13. z before $y \in v$
14. $\forall z$:T. z before $y \in v \Rightarrow (z$ before $x \in v \vee (z = x))$

$\vdash z$ before $x \in [u$ / $v] \vee (z = x)$

.