```
action_append  THM

⊢  ∀S:ActionSet(T), s:S.car, tl1,tl2:T*.
|  (S:tl1 @ tl2←s) = (S:tl1←(S:tl2←s))  by RepD
|
1. T : Type
2. S : ActionSet(T)
3. s : S.car
4. tl1 : T*
5. tl2 : T*
⊢  (S:tl1 @ tl2←s) = (S:tl1←(S:tl2←s))
| by ListInd -2 THEN RecUnfold ‘maction‘ 0 THEN Reduce 0
|    THEN
|    RecFold ‘maction‘ 0
|
6. u : T
7. v : T*
8. (S:v @ tl2←s) = (S:v←(S:tl2←s))
⊢  S.act(u,(S:v @ tl2←s)) = S.act(u,(S:v←(S:tl2←s)))  by Analyze
END
```