```
happend_wd  THM

⊢  ∀'a:S.
   and
   (all(λl:hlist('a). equal(append(nil,l),l))
   ,all
    (λl1:hlist('a). all
                   (λl2:hlist('a). all
                                  (λh:'a. equal
                                          (append(cons(h,l1),l2)
                                          ,cons
                                           (h
                                           ,append(l1,l2)))))))
  by HN THEN StrongAuto THEN Try (Complete (Unfold `label` 0))
END
```