```
hsimp_rec_rel_wd  THM

⊢  ∀'a:S.
   all
   (λfun:hnum
    → 'a. all
          (λx:'a. all
                  (λf:'a
                   → 'a. all
                         (λn:hnum. equal
                                   (simp_rec_rel(fun,x,f,n)
                                   ,and
                                    (equal(fun(0),x)
                                    ,all
                                     (λm:hnum. implies
                                               (lt(m,n)
                                               ,equal
                                                (fun(suc(m))
                                                ,f(fun(m))))))))))
  by Unab [‘hsimp_rec_rel‘] THEN Simpsetp [‘hol_to_nuprl‘;‘bequal‘]
     THEN
     StrongAuto
END
```