```
choose_functionality_axiom  THM

⊢  ∀T:S, P,Q:(T→Type).
|  (∀x:T. P(x) ⟺ Q(x)) ⇒ (@x:T. P(x)) = (@x:T. Q(x))
| by Id THEN StrongAuto
|
⊢  ∀T:S, P,Q:(T→Type).
   (∀x:T. P(x) ⟺ Q(x)) ⇒ (@x:T. P(x)) = (@x:T. Q(x))
  by UseWitness * THEN Fiat
END
```