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theory Hnr_Rules_Tuple
  imports Hnr_Base Keep_Drop Norm Merge
begin

lemma hnr_tuple [hnr_rule]:
  assumes
    "hnr  $\Gamma$   $a_i$   $\Gamma_a$  (Some  $a$ )"
    " $\wedge a\ a_i.$  hnr ( $\Gamma_a\ a\ a_i * \text{true}$ )  $b_i$  ( $\Gamma_b\ a\ a_i$ ) (Some  $b$ )"
  shows
    "hnr
       $\Gamma$ 
      (do {  $a_i' \leftarrow a_i$ ;  $b_i' \leftarrow b_i$ ; return ( $a_i', b_i'$ ) })
      ( $\lambda x\ x_i.$   $\Gamma_b$  (fst  $x$ ) (fst  $x_i$ ) (snd  $x$ ) (snd  $x_i$ ))
      (Some ( $a, b$ ))"
  sorry

end

```