

$$\vdash ((A_a \rightarrow A_{fa}) \wedge (A_{fa} \rightarrow A_{ff(a)})) \rightarrow A_{f(a)} \quad |$$

$$X: ((a_1 \wedge a_2 \rightarrow b_1) \wedge (a_3 \wedge a_4 \rightarrow b_2)) \rightarrow C_2$$

$$X: (\bullet \rightarrow \bullet) \rightarrow \bullet$$

$$b_1 \leq C_2 \quad b_2 \leq C_2$$

$$\boxed{< wf}$$

given

$\Gamma, a$  such that

$$a: \bigwedge a_i$$

$$Y: \bigwedge (a_{i,j} \rightarrow a'_{i,j})$$

$$X: \bigwedge (\bigwedge (Aa \rightarrow b)) \rightarrow c$$

$$b \leq c$$

$$\boxed{< wf}$$

decide exist  $t$  s.t.  $\Gamma \vdash t : a$

$$u = \lambda y. y(fy a)$$

$$\vdash u = r$$

"

$$\lambda x. \dots$$

$$X: (\textcircled{a} \rightarrow \textcircled{a}) \rightarrow \textcircled{a}$$

$$X: \dots \vdash X(\lambda z. z) : a$$

$$\hline \downarrow$$

$$z: a, X: \dots \vdash z: a$$

$$b < a$$

$$X: ((a \rightarrow a) \wedge (b \rightarrow b)) \rightarrow a$$

$$X'$$

$$X(\lambda z. X(\lambda z'. z'))$$

$$z$$

$$\vdash \#$$

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