

$$\begin{array}{c} {}^uK_\varphi \ni \gamma|\mathfrak{A} \\ \underbrace{\gamma|\mathfrak{A} \dot{\vdash} \mathfrak{H}|\mathfrak{A}} = \underbrace{\gamma\mathfrak{r} + \varphi\mathfrak{A}\mathfrak{A}|\gamma\mathfrak{A} + \mathfrak{A}\mathfrak{r}} \end{array}$$

$$\gamma \ltimes \gamma|\gamma \ltimes \mathfrak{A} \in {}^xK_{\gamma \ltimes \varphi} \stackrel{C_\gamma}{\leftarrow} \stackrel{\exists}{\phantom{\gamma \ltimes \gamma|\gamma \ltimes \mathfrak{A}}} {}^uK_\varphi \ni \gamma|\mathfrak{A}$$

$$\begin{array}{l} \overline{C_\gamma \gamma|\mathfrak{A}}_{\gamma \dot{\ltimes} \varphi} \overline{C_\gamma \mathfrak{H}|\mathfrak{A}} = \overline{\gamma \ltimes \gamma|\gamma \ltimes \mathfrak{A}}_{\gamma \dot{\ltimes} \varphi} \overline{\gamma \ltimes \mathfrak{H}|\gamma \ltimes \mathfrak{A}} \\ = \overline{\gamma \ltimes \gamma \overline{\gamma \ltimes \mathfrak{r}} + \gamma \ltimes \varphi \overline{\gamma \ltimes \mathfrak{A}} \overline{\gamma \ltimes \mathfrak{A}} | \gamma \ltimes \gamma \overline{\gamma \ltimes \mathfrak{A}} + \gamma \ltimes \mathfrak{A} \overline{\gamma \ltimes \mathfrak{r}}} \\ = \overline{\gamma \ltimes \overline{\gamma\mathfrak{r}} + \gamma \ltimes \overline{\varphi\mathfrak{A}\mathfrak{A}} | \gamma \ltimes \overline{\gamma\mathfrak{A}} + \gamma \ltimes \overline{\mathfrak{A}\mathfrak{r}}} = \overline{\gamma \ltimes \overline{\gamma\mathfrak{r} + \varphi\mathfrak{A}\mathfrak{A} | \gamma \ltimes \overline{\gamma\mathfrak{A} + \mathfrak{A}\mathfrak{r}}}} \\ = C_\gamma \underbrace{\gamma\mathfrak{r} + \varphi\mathfrak{A}\mathfrak{A} | \gamma\mathfrak{A} + \mathfrak{A}\mathfrak{r}} = C_\gamma \underbrace{\gamma|\mathfrak{A} \dot{\vdash} \mathfrak{H}|\mathfrak{A}} \end{array}$$

$$\begin{array}{ccccc} & C_y & & C_g & \\ {}^xK_{y \ltimes g \ltimes \varphi} & \longleftarrow & {}^uK_{g \ltimes \varphi} & \longleftarrow & {}^vK_\varphi \\ & & C_{yg} & & \end{array}$$