(1) We want to show that $\mathcal{A} \in R^R$ ("easy to see" on p. 108, top line).

(2) We shall use the following fact (from the def. of $\mathcal{A}$):

$$\bigvee_{j \in J} [\![\xi = \xi_j]\!] = [\![\mathcal{A}(\xi) = 0]\!]$$

(cf. p. 108 / line 3)

(3) Now calculate as follows:

$$[\![\xi = \eta]\!] \wedge [\![\mathcal{A}(\xi) = 0]\!] = [\![\xi = \eta]\!] \wedge \bigvee_j [\![\xi = \xi_j]\!] =$$

$$\bigvee_j \left([\![\xi = \eta]\!] \wedge [\![\xi = \xi_j]\!] \right) \underset{\substack{\uparrow \\ \text{equal. ax.}}}{\leq} \bigvee_j [\![\eta = \xi_j]\!] = [\![\mathcal{A}(\eta) = 0]\!].$$

Analogously:

$$[\![\xi = \eta]\!] \wedge [\![\mathcal{A}(\eta) = 0]\!] \leq [\![\mathcal{A}(\xi) = 0]\!].$$

But because for any $\zeta \in R$: $[\![\mathcal{A}(\zeta) = 0]\!] \vee [\![\mathcal{A}(\zeta) = 1]\!] = 1_B$, the wanted:

$$[\![\xi = \eta]\!] \leq [\![\mathcal{A}(\xi) = \mathcal{A}(\eta)]\!]$$

follows.

$\square$