LEMMA 1021. $(\bigsqcap G) \circ f = \bigsqcap \left\{ \frac{g \circ f}{g \in G} \right\}$ if f is a monovalued principal reloid and G is a set of reloids (with matching sources and destinations).

PROOF. Let $f = \uparrow^{\mathsf{RLD}} \varphi$ for some monovalued **Rel**-morphism φ.
$(\bigsqcap G) \circ f = \bigsqcap \left\{ \frac{\uparrow^{\mathsf{RLD}}(g \circ \varphi)}{g \in \mathrm{xyGR} \bigsqcap G} \right\}$;

$$\mathrm{GR} \bigsqcap \left\{ \frac{g \circ f}{g \in G} \right\} =$$
$$\mathrm{GR} \bigsqcap \left\{ \frac{\bigsqcap \left\{ \frac{\uparrow^{\mathsf{RLD}}(\Gamma \circ \varphi)}{\Gamma \in \mathrm{xyGR}\, g} \right\}}{g \in G} \right\} =$$
$$\mathrm{GR} \bigsqcap \bigcup \left\{ \frac{\left\{ \frac{\uparrow^{\mathsf{RLD}}(\Gamma \circ \varphi)}{\Gamma \in \mathrm{xyGR}\, g} \right\}}{g \in G} \right\} =$$
$$\mathrm{GR} \bigsqcap \left\{ \frac{\uparrow^{\mathsf{RLD}} (\Gamma \circ \varphi)}{\Gamma \in \mathrm{xyGR} \bigsqcap G} \right\} =$$
$$\left\{ \frac{(\Gamma_0 \circ \varphi) \sqcap \cdots \sqcap (\Gamma_n \circ \varphi)}{\Gamma_i \in \bigcup G \text{ where } i = 0, \ldots, n \text{ for } n \in \mathbb{N}} \right\} = \text{ (proposition above)}$$
$$\left\{ \frac{(\Gamma_0 \sqcap \cdots \sqcap \Gamma_n) \circ \varphi}{\Gamma_i \in \bigcup G \text{ where } i = 0, \ldots, n \text{ for } n \in \mathbb{N}} \right\} =$$
$$\left\{ \frac{\Gamma \circ \varphi}{\Gamma \in \mathrm{xyGR} \bigsqcap G} \right\}.$$

Thus $(\bigsqcap G) \circ f = \bigsqcap \left\{ \frac{g \circ f}{g \in G} \right\}$. □

THEOREM 1022.

1°. Monovalued reloids are metamonovalued.
2°. Injective reloids are metainjective.

PROOF. We will prove only the first, as the second is dual.
Let G be a set of reloids and f be a monovalued reloid.
Let f' be a principal monovalued continuation of f (so that $f = f'|_{\mathrm{dom}\, f}$).
By the lemma $(\bigsqcap G) \circ f' = \bigsqcap \left\{ \frac{g \circ f'}{g \in G} \right\}$. Restricting this equality to $\mathrm{dom}\, f$ we get: $(\bigsqcap G) \circ f = \bigsqcap \left\{ \frac{g \circ f}{g \in G} \right\}$. □

CONJECTURE 1023. Every metamonovalued reloid is monovalued.