□

Corollary 13 *A binary relation corresponds to a monovalued funcoid iff it is a function.*

Proof Because $\forall I, J \in \mathscr{P}(\operatorname{im} f) : \left\langle f^{-1}\right\rangle^* (I \cap J) = \left\langle f^{-1}\right\rangle^* I \cap \left\langle f^{-1}\right\rangle^* J$ is true for a funcoid f corresponding to a binary relation if and only if it is a function.

□

Remark 5 This corollary can be reformulated as follows: For binary relations (principal funcoids) the classic concept of monovaluedness and monovaluedness in the above defined sense of monovaluedness of a funcoid are the same.

3.14 T_0-, T_1- and T_2-separable funcoids

For funcoids it can be generalized T_0-, T_1- and T_2- separability. Worthwhile note that T_0 and T_2 separability is defined through T_1 separability.

Definition 37 *Let call T_1-**separable** such funcoid f that for every $\alpha \in \operatorname{Src} f$, $\beta \in \operatorname{Dst} f$ is true*

$$\alpha \neq \beta \Rightarrow \neg(\{\alpha\} [f]^* \{\beta\}).$$

Definition 38 *Let call T_0-**separable** such funcoid $f \in \mathsf{FCD}(A; A)$ that $f \cap f^{-1}$ is T_1-separable.*

Definition 39 *Let call T_2-**separable** such funcoid f that the funcoid $f^{-1} \circ f$ is T_1-separable.*

For symmetric transitive funcoids T_1- and T_2-separability are the same (see theorem 3).

Obvious 19. A funcoid f is T_2-**separable** iff $\alpha \neq \beta \Rightarrow \langle f\rangle^* \{\alpha\} \asymp \langle f\rangle^* \{\beta\}$ for every $\alpha, \beta \in \operatorname{Src} f$.

3.15 Filter objects closed regarding a funcoid

Definition 40 *Let's call **closed** regarding a funcoid $f \in \mathsf{FCD}(A; A)$ such filter object $\mathcal{A} \in \mathfrak{F}(\operatorname{Src} f)$ that $\langle f\rangle \mathcal{A} \subseteq \mathcal{A}$.*

This is a generalization of closedness of a set regarding an unary operation.

Proposition 26 *If $\mathcal{I}$ and $\mathcal{J}$ are closed (regarding some funcoid f), S is a set of closed filter objects on $\operatorname{Src} f$, then*

1. *$\mathcal{I} \cup \mathcal{J}$ is a closed filter object;*

2. *$\bigcap S$ is a closed filter object.*