Definition (Semigroup right action (preliminary version)). A *semigroup **right** action* of a semigroup $\mathbf{S}$ onto a set $\mathbf{A}$ is a map

$$\mathrm{Ract} : \mathbf{A} \times \mathbf{S} \to \mathbf{A}$$

such that, for all $a \in \mathbf{A}$,

$$\mathrm{Ract}(\mathrm{Ract}(a, x), y) = \mathrm{Ract}(a, x \mathbin{\fatsemi_{\mathbf{S}}} y).$$