**Definition** (Semigroup right action (preliminary version)). A semigroup right action of a semigroup S onto a set A is a map

Contravact: 
$$\mathbf{A} \times \mathbf{S} \to \mathbf{A}$$

such that, for all  $a \in A$ ,

Contravact(Contravact(a, x), y) = Contravact( $a, x \stackrel{\circ}{}_{S} y$ ).