# Semitransitive Collections of Operators

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A collection $F$ of operators on a vector space $V$ is called semitransitive if given $x$ and $y$ in $V$ there is a member A of F such that either $Ax = y$ or $Ay = x$. For a group, or more generally, any set of invertible operators that contains inverses of all its members, this concept clearly coincides with transitivity. (An obvious topological version of the definition can also be made when V is a normed space.) In the last few years, work has been done on semitransitive algebras and semigroups of operators, including the joint work first by H. Rosenthal and V. Troitsky, and then by J. Bernik, L. Grunenfelder, M. Mastnak, V. Troitsky, and the present author. More recently, I have also worked with Troitsky on semitransitive spaces of operators. I will report on some of these results.