On the reflexivity of the kernel of an elementary operator

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The notion of a reflexive linear space of operators is closely related with the invariant subspace problem for complex Banach spaces. There are several generalizations of this notion. One of them is k-reflexivity, where k is an arbitrary positive integer. One can show that a linear space of operators is k-reflexive if and only if it is an intersection of kernels of a set of elementary operators of length at most k. Thus, it is natural to ask when is the kernel of a given elementary operator k-reflexive. We will present some results related to this question.