Jerry R. Muir, Jr.* (muirj2@scranton.edu), Department of Mathematics, University of Scranton, Scranton, PA 18510. A modification of the Roper-Suffridge extension operator. The Roper-Suffridge extension operator extends a locally univalent mapping defined on the unit disk of \( \mathbb{C} \) to a locally biholomorphic mapping defined on the Euclidean unit ball of \( \mathbb{C}^n \). Furthermore, the extension of a one variable mapping that is either convex or starlike has the analogous property in several variables. Motivated by recent results concerning the extreme points of the family \( \mathcal{K}_n \) of normalized convex mappings of the Euclidean ball in \( \mathbb{C}^n \), we introduce a new extension operator that, under precise conditions, takes the extreme points of \( \mathcal{K}_1 \) to extreme points of \( \mathcal{K}_n \). In general, we examine the conditions under which this new extension operator will take a convex or starlike mapping of the unit disk to a mapping of the same type defined on the unit ball. (Received September 22, 2005)