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Richard I Avery* (rich.avery@dsu.edu), 45444 229th Street, Madison, SD 57042. *An Extension of the Fixed Point Theorem of Cone Expansion and Compression of Functional Type.*

The fixed point theorem of cone expansion and compression of norm type is extended by a comparison to monotonic operators on intervals which yields improved existence results when applicable. As an application, the existence of a positive solution to a second order right focal boundary value problem will be verified and a comparison of existence results will be given. (Received August 22, 2005)