1145-44-2628Lance Nielsen* (lnielsen@creighton.edu), Department of Mathematics, Creighton University,
2500 California Plaza, Omaha, NE 68178. Incorporating Unbounded Operators into Feynman's
Operational Calculus. Preliminary report.

We will illustrate a method of incorporating unbounded operators into Feynman's operational calculus, the forming of functions of several not necessarily commuting operators. In particular, the functional calculus introduced by A. E. Taylor in his 1951 paper *Spectral theory of closed distributive operators* is applied to the abstract setting of Feynman's operational calculus to enable the use of unbounded operators. This extension to unbounded operators enables us to make a connection with a type of Feynman integral, the "modified Feynman integral." (Received September 25, 2018)