1019-37-114 **Robert T. Powers*** (rpowers@math.upenn.edu), Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104. *Comparison Theory for E-semigroups.*

We discuss comparison theory for E-0-semigroups. The first step is defining the notion of cocycle conjugacy for E-semigroups (Strongly continuous semigroups of *-automorphisms of B(H) which are not necessarily unital). Using Arveson's Theory of product systems one can show every E-semigroup of B(H) is cocycle conjugate to an E-0-semigroup. We say one E-semigroup is greater than a second E-semigroup if it is cocycle conjugate to a subordinate of the second E-semigroup. The properties of this ordering as well as questions that arise are discussed. The ordering helps clarify how the notion of index fits in with the classification of E-semigroups of B(H). In particular it appears that the index of an E-0-semigroup of type III is neither greater than or less than or equal to the index of a type I or II. (Received August 10, 2006)