It is a well-known fact that endomorphisms of \( B(H) \) are intimately connected with families of mutually orthogonal isometries, i.e. with representations of the so-called Toeplitz \( C^* \)-algebras. In this paper we consider a natural generalization of this connection between the representation theory of certain \( C^* \)-algebras associated to graphs and endomorphisms of certain von Neumann subalgebras of \( B(H) \). Our primary results give criteria by which we may be determine if two representations give rise to equal or conjugate endomorphisms. (Received August 01, 2018)