The category of strict polynomial functors inherits a tensor product from the category of divided powers. Likewise, a tensor product for the category of representations of the symmetric group, the so-called Kronecker product, is given by the Hopf algebra structure. We will discuss the correspondence of these two monoidal structures by relating them using the Schur functor.

Further, we consider the right and left adjoints of this Schur functor.

We explain how these adjoints can be expressed in terms of one another by Kuhn duality and the central role the monoidal structure on strict polynomial functors plays in this context.