Categorical braid group actions, tensor products, and perverse equivalences

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Much of the theory of quantum groups and their representations has recently been lifted to the categorical level, where richer structure and new properties emerge. In particular, Lusztig's braid group action was categorified by Chuang and Rouquier through the construction of certain complexes of functors, known as Rickard complexes. Subsequently, Webster constructed a categorical lifting of the R-matrix action on tensor products of representations. I will discuss these two constructions in the setting of perverse equivalences - known results about the former and work in progress about the latter joint with Erika Beserra.