On generalization of Khovanov link homologies

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In paper 'Categorification of Jones polynomial' (1999) Mikhail Khovanov constructed graded homologies for a given link diagram, whose Euler characteristic was the Jones polynomial of a link. The idea is to build from a link diagram a commutative cube in the category of cobordisms, send it by a functor into some algebraic category, where one creates a complex. It was reformulated by Dror Bar-Natan in paper 'Khovanov's homology for tangles and cobordisms' (2005) in which he gave a proof of independence of a link diagram at the level of topology (original proof was done in the algebraic category). In paper 'Odd Khovanov Homologies' (2007) another similar construction appeared, however it was given by a 'half-projective' functor (a functor upto a sign) and Bar-Natan's approach failed. On the other hand, having enriched cobordisms with additional structure I managed to reformulate this construction to make it functorial and then prove the independence at the level of topology. This produced four link homology theories over integers, containing both theories known before. In my talk I will describe this construction emphasing the differences with the original constructions.