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Change of enrichment along a weak monoidal Quillen pair

This work is motivated by the observation that, considering the Dold–Kan correspondence $N : \mathrm{sMod}_R \cong \mathrm{Ch}_{\geq 0}(R) : \Gamma$, for a category $\mathcal{C}$ that is enriched, tensored, and cotensored over the category of simplicial (left) R-modules sMod_R (the category of non-negatively graded chain complexes of (left) R-modules $\mathrm{Ch}_{\geq 0}(R)$, respectively), the $\mathrm{Ch}_{\geq 0}(R)$-enriched category $N_*\mathcal{C}$ (the sMod_R-enriched category $\Gamma_*\mathcal{C}$, respectively) does not inherit a tensoring nor a cotensoring over $\mathrm{Ch}_{\geq 0}(R)$ (sMod_R, respectively). In this talk, we generalize this observation, and we give an insight of which properties are preserved and which are weakened after changing the enrichment of a $\mathcal{V}$-enriched model category $\mathcal{C}$ along a right weak monoidal Quillen adjoint $G : \mathcal{V} \to \mathcal{W}$.