ERRATUM TO “RELATIVE BARR-RINEHART AND COTRIPLE COHOMOLOGY GROUPS ARE ISOMORPHIC”

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The assertion in the title is not a theorem, even though the theorem in the body of the paper is. Professors A. M. Cegarra, E. R. Aznar and A. R. Garzón of Granada have provided counterexamples. The mistake is fundamental and was made clear in a discussion with Professor M. Barr. Let BR denote the Barr-Rinehart groups, $H$ the cotriple groups. Then for $\phi: T \to R$ in $\mathcal{C}/R$, $H^n(R, M) = BR^n(R, M)$, whereas $H_\phi^n(T, M) \neq BR_\phi^n(T, M)$. Hence $H^n(R, -)$ vanishes on $\mathcal{D}$-injectives, but $H_\phi^n(T, -)$, in general, does not. In this regard, one should be aware of the missing $\phi$ in the display following (2.1.1) on p. 419 of the Barr-Rinehart paper [2]. The Barr-Rinehart groups in general coincide with the cotriple groups only on the terminal object of $\mathcal{C}/R$.

REFERENCES


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