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See **Keong Lee*** (sklee@usm.my), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia. *The monotonicity properties of a generalized Bessel function.*

The monotonicity properties of the generalized Bessel function

$${}_a\mathbf{B}_{b,p,c}(x) := \sum_{k=0}^{\infty} \frac{(-c)^k}{k! \Gamma\left(ak + p + \frac{b+1}{2}\right)} \left(\frac{x}{2}\right)^{2k+p},$$

where $a \in \mathbb{N} = \{1, 2, 3, \dots\}$ and $b, p, c, x \in \mathbb{R}$, will be discussed for $c \leq 0$. Also for a closely related function to ${}_a\mathbf{B}_{b,p,c}$, its log-convexity and log-concavity properties in terms of the parameters d and p will be respectively investigated, which would then lead to direct and reverse Turán-type inequalities. (Received September 18, 2018)