This paper considers the radial variation function $F(r, t)$ of an analytic function $f(z)$ on the disc $D$. We examine $F(r, t)$ when $f$ belongs to a Besov space $A^{s}_{pq}$ and look for ways in which $F$ imitates the behaviour of $f$. Regarded as a function of position $(r, t)$ in $D$, we show that $F$ obeys a certain integral growth condition which is the real variable analogue of that satisfied by $f$. We consider also the radial limit $F(t)$ of $F$ as a function on the circle. Again, $F \in B^{s}_{pq}$ whenever $f \in A^{s}_{pq}$, where $B^{s}_{pq}$ is the corresponding real Besov space. Some properties of $F$ are pointed out along the way, in particular that $F(r, t)$ is real analytic in $D$ except on a small set. The exceptional set $E$ on the circle at which $\lim_{r \to 1} f(re^{it})$ fails to exist, is also considered; it is shown to have capacity zero in the appropriate sense. Equivalent descriptions of $E$ are also given for certain restricted values of $p, q, s$. 

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