I will discuss solvability results for quasilinear boundary-value problems of the form

\[-r^{-\gamma} (\phi(u'))' = f(u), \quad 0 < r < 1, \quad u'(0) = u(1) = 0,
\]

where \(f(\cdot)\) is a step function defined by the constants \(K\) and \(L\). The specific focus will be determining regions in the \((K, L)\)-plane where this problem has positive or sign-changing solutions. (Received September 14, 2006)