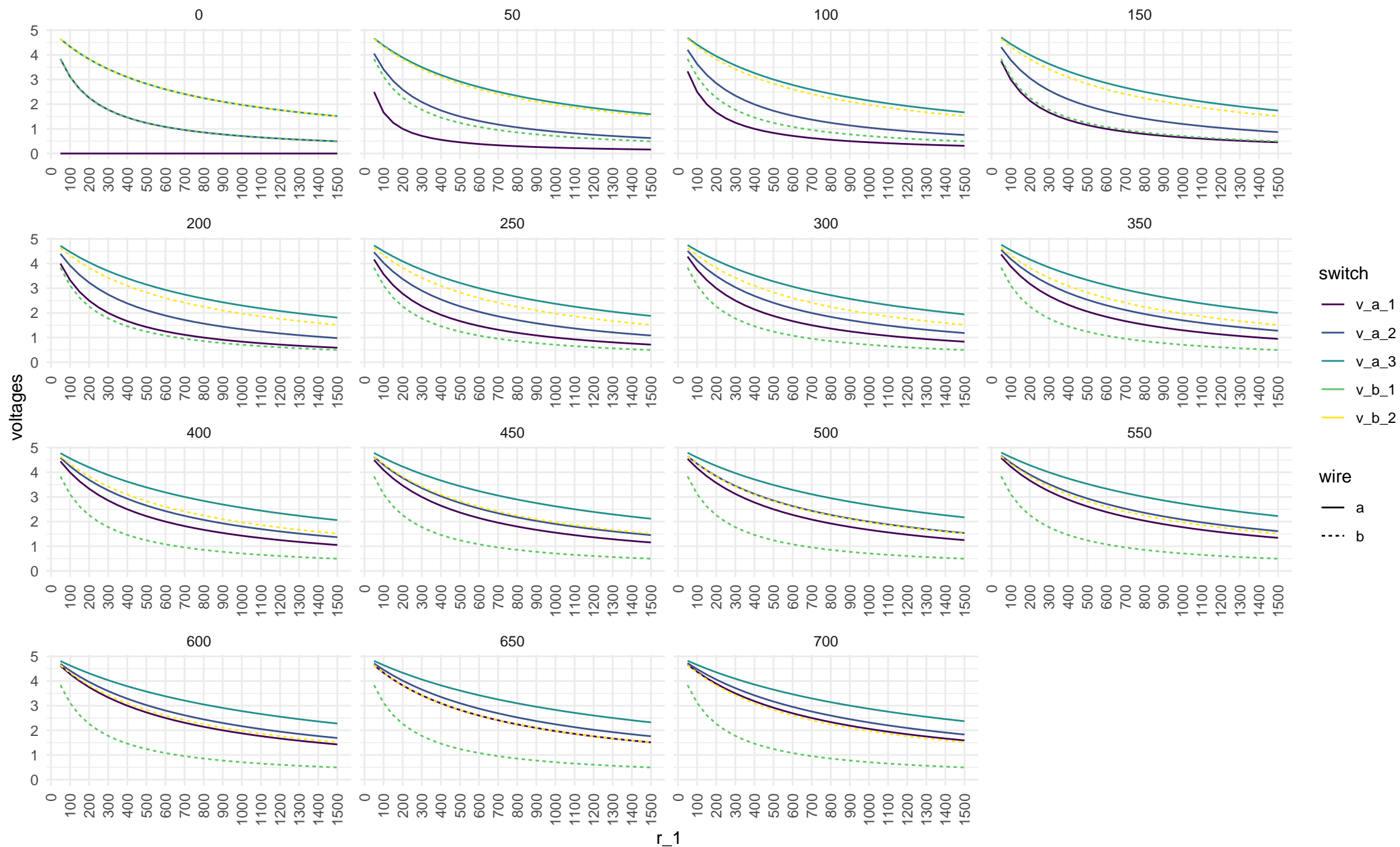


Voltages produced by switches relative to R1 and R extra on wire A.
Separate panels show values of R extra, which is added in series with wire A.



The best values to choose are ones that produce the most spread-apart voltage on the 5 switch states, in my case I'm going for $R_1=500\text{ohm}$ and $R_{extra}=300\text{ohm}$