Given a Dirichlet character $\chi \mod q$, it is traditional to extend $\chi$ to all of $\mathbb{Z}/q\mathbb{Z}$ by declaring that $\chi(n) = 0$ when $(n, q) \neq 1$. When $\chi$ is primitive (i.e. not induced by a Dirichlet character mod $d$ for some proper divisor $d$ of $q$), this extension endows the associated Gauss sum and $L$-function with properties that are lost when $\chi$ is imprimitve. In this talk we will introduce a modification to the traditional extension of imprimitive characters which causes them to behave primitively, in the sense that the relevant properties of the Gauss sum and $L$-function take on the form usually only associated to primitive characters. (Received September 22, 2011)