Let $n$ and $k$ be integers with $1 \leq k \leq n - 1$, and let $c$ be real with $0 < c \leq 2$. Consider the family of harmonic trinomials $p_c(z) = z^n + cz^k - 1$. Unlike analytic trinomials, $p_c(z)$ can have more than $n$ zeros. For fixed values of $n$ and $k$, we explore how the number of zeros varies with $c$. Using different visualizations on Mathematica, it is possible to obtain a conceptual understanding of why there is a discrete set of $c$-values at which new zeros are "born." We introduce the critical circle, which separates the orientation preserving and reversing regions for $p_c(z)$ and show how it plays a fundamental role in finding the discrete set of $c$-values. Along the way, we will visit intersections of level curves, winding numbers, and even hypocycloids! (Received September 17, 2019)