Abstract: In this talk, we will look at mathematical modeling of language using computer simulations. Using these models, we study how individuals with language spread through a population of individuals without language. We consider a population without language on one- and two-dimensional grids. Language will appear in the population through a genetic mutation. To study how the language group will grow, we focus on the effects of talking and movement. If two individuals with language are next to each other on the grid, they can communicate. We consider their ability to talk to be advantageous, giving them a higher reproduction rate. Individuals are also able to move around on the grid and reproduce within a certain radius, called the jump radius. We are looking at how these affect the time it takes for the individuals with language to invade the population. We find that, for a two-dimensional grid, a jump radius that is too small or too large will increase the time it takes to invade. For a one-dimensional grid, we do not see the same effect. The time to invasion decreases as the jump radius increases.