

An Agent-Based Model of Language Contact

The objective of this agent-based model is to explore the dynamics of language contact in communities where two languages, a minority and a majority language, are spoken. The main assumption is that all minority-language speakers are also able to speak the majority language, while the opposite is not true. Due to the need to communicate across the two communities, continued use of the majority language has a negative impact on the level of fluency in the minority language. The model explores the demographic evolution of the minority-language community as a consequence of four variables of interest, i.e.:

1. The level of exogamy of the minority community, that is, the tendency with which mixed majority-minority households are created (the direct consequence is that newborns will be majority language speakers only);
2. Whether or not there is some form of educational support for minority-language speakers in order to maintain their knowledge of the language;
3. How small the minority community needs to be before some form of education plan is implemented by the government;
4. The attitude of people towards the minority language, that is, whether people tend to hide or reveal the fact that they belong to the minority community.

The model reveals that the strongest predictor of long-term language decline is the level of exogamy, especially if the language is not supported by education plans and a positive attitude.