

Making Schelling's Model More Realistic

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Goal

- ▶ Does Schelling's modeling some element of society?
- ▶ Do properties of Schelling's model have parallel properties in society?
- ▶ ???

My Proposal

- ▶ One unrealistic aspect of Schelling's model is that unhappy persons move to random cell.
- ▶ The probability that they move to an adjacent cell is the same as the probability of moving to a cell far away?
- ▶ Why? When we are unhappy, it is more likely that we would move to a nearby area than a far away area (stay near the extended family)
- ▶ Instead of unhappy persons moving to a random cell uniformly, have them find a place where they would be happy via a *random walk*

What is a random walk?

Review of Schelling's Model

My Implementation of Schelling's model:

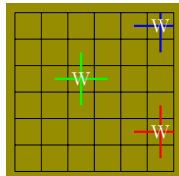
1. Two types of people (white and black) located on an $n \times n$ board.
 - ▶ (picture a chessboard)
2. Each type of person has a preference for who they like to live near.
3. If a person's preferences are not met, then they are unhappy.
4. During each iteration of the model, one unhappy person is randomly selected.
5. Then that person moves to a random, empty space such that they are happy.

Schelling's Model

Fixed Parameters to Schelling's Model

1. Two races
2. Lattice, checkerboard space
3. Selecting a person to move randomly
4. Size of board
5. Selection of who gets to move

		3	2	3	
	3	2	1	2	3
3	2	1	W	1	2
	3	2	1	2	3
		3	2	3	
			3		



Analysis

Conclusions and Further Questions