

Winners, Losers

The yard sale, a simple mathematical model developed by physicist Anirban Chakraborti, assumes that wealth moves from one person to another when the former makes a “mistake” in an economic exchange. If the amount paid for an object exactly equals what it is worth, no wealth changes hands. But if one person overpays or if the other accepts less than the item’s worth, some wealth is transferred between them. Because no one wants to go broke, Chakraborti assumed that the amount that can potentially be lost is some fraction of the wealth of the poorer person. He found that even if the outcome of every transaction is chosen by a fair coin flip, many such sales and purchases will inevitably result in all the wealth falling into the hands of a single person—leading to a situation of extreme inequality.

