Appendix F: How Trading Works in the Simulation

Trading in the society simulator is not meant to reflect modern society. It was designed to give the agents a means to share their wealth in accordance with the principles of trading. The trading code is changed and experimented with more than any other code.

The practical effectiveness of trading for the population in this simulation seems to depend on the environment. In some environments, trading significantly enhances the population. In other environments, it tends to empower a wealth aggregation imperative.

As it exists in Societal Simulator v203, there are three main parts to trading in this simulation:

1) Establishing the four ‘best prices’ to offer other agents.
2) Establish tradable goods.
3) Finding a beneficial trading partner.

Part One:

There are four prices held by each agent. The prices are the buying price of *needs*, the selling price of *needs*, the buying price of *wants*, and the selling price of *wants*. These prices are the least advantageous prices with which an agent will accept in a trade.

Agents are forced to change the prices by the programming, but the rates of price change up and down are determined by evolutionary variables. This allows different agents to evolved different pricing strategies.

Part Two:

Establishing the portion of *needs* for sale is a function of measuring its possession of *needs* against an evolved savings rate. If an agent has excess *needs*, it offers it for sale. Any *want* is for sale at the right price.

Part Three:

An agent utilizes its ‘order of trade’ to determine in which order it will buy and sell goods (displayed in the Culture 1 and Culture 2 charts). During each iteration, agents have the ability to initiate two trades in each of the four economic operations: buy *wants*, sell *wants*, buy *needs*, sell *needs*. (eg. an agent can twice try to sell its excess *needs* on any given iteration). It will interrogate its environment for other agents with which to trade and if it finds one or more, it will seek the most advantageous price being offered by that agent. If no one can match or better the agent’s least advantageous price (lowest price for selling, highest price for buying), or if the agent fails to sell or buy everything it wishes, the agent will adjust its prices to be less advantageous. If the agent succeeds in trading everything it wishes, it will adjust its price to be more advantageous for the next trade.

There is no ceiling on prices. Prices are not uniform in all areas of the simulation. In some transactions, some agent's can get 'ripped off'.