

This week in our in-class fishing experiment, we discovered many different traps as referenced in Meadows' Chapter 5. Tragedy of Commons, Success to the Successful, and Seeking the Wrong Goal were all experienced in some capacity. By finding new goals, giving up on ineffective policies, and just plain simple fixes, we can work to escape the trap in which the system finds itself in.

First, this game was a classic example of the tragedy of the commons. As the definition states, we experienced "escalation, simple growth, of a commonly shared, erodible environment". Because the actors had good reason to increase independent conditions, in this case fish intake, an extremely unsustainable environment was created. I found one of Meadows' quotes relating to the tragedy particularly useful in the context of this game: "it makes selfish behavior more convenient and profitable than behavior that is responsible to the whole community and to the future". The instructions for this game, or the boundaries as some may call them, were not detailed on how we would proceed past our 10 days. Simply, we worried about the 10 days of fishing, and if the stock was erased at the end, it did not matter because we had succeeded in catching 18 fish (hopefully). It was easier and made us more money to catch fish until they were gone. Because the boundaries set by the system were not explicit in concerning the future of the stock, we were forced into our first trap: the tragedy of the commons.

Next, Success to the Successful is a slightly apparent trap as well. In an activity that requires resources to partake in like fishing, only those who make enough money to afford those assets can participate. It was unclear exactly how much one's boat, equipment, and bait costs, but they all definitely come with a fixed cost to operate. In addition, there is a fixed reinforcing feedback loop that would likely occur if this game went on for more than 10 days. By catching the most fish, you would make the most money which would give you lateral is investing that money back into your equipment. For example, you catch the most fish, make the most money, buy a bigger boat, can go out deeper into the ocean, and catch even more fish from a larger fish school. This would be a hypothetical classic example of winners who keep on winning and losers who go on losing; success to the successful.

Lastly, one of the largest impacts on the game included the trap of seeking the wrong goal. In my opinion, the game was focused around the wrong goal of catching as many fish in the allotted time period. With concerns of decreasing fish populations worldwide, there is a focus on sustainable fishing. In seeking the wrong goal, one puts themselves into a trap that does not just deeply affect everyone in the system, but that actor as well. If you overfish a population, that population will be unable to regenerate and you yourself may never be able to fish again. In this case, catching one more fish a day making you \$2, may cost you thousands in lost revenue in the end. Long-term thinkers and sustainable actors need to be considered in all types of systems that involve the possibility of depleting resources.

Throughout the game, I noticed two situations where boundaries and traps were being placed on the system through the instructions used. The first example I found was on the directions page where the following text was presented just prior to clicking play: **"Remember: the object of the game is to have as many fish as possible at the end of the game."** The creators of the system made sure to catch everyone's attention and remind them one last time

they were not to think long-term. Again, at the end of the game the last text one sees is: **“Did you catch 18 fish or more?”** This statement further helps enforce the focus on maximizing profits and caring little about anything else. Both these circumstances stuck out to me from the very first few times playing the game. By adding statements like this, systems further help replicate problematic behavior repeatedly. It would be interesting to see what people’s initial reaction to playing the game would be without these statements included.

I believe when we refocus our goals, the fishers would come together to find a way to maximize everyone’s utility, while at the same time ensuring fish for the future. To begin, educating would be the first way to make people aware of the problem. Second, we could either privatize or regulate the commons. In doing this, people would be forced to look out for the system as a whole and not just their own wellbeing.

It is becoming more evident in society that people are concerned with things that affect them. This selfish nature will have detrimental impacts on society and systems. By searching for statements like the ones I pointed out, giving up ineffective policies, or finding ways to align various goals of subsystem, we can break the mold and become a more sustainable, selfless society.