

One of the systems that is of particular interest to me is the one in Molly's tomato parable. This story demonstrates how systems have a mind of their own, and can react differently regardless of the explicit intent and goals. The tomato story resulted in a shift of the paradigm, "more more more is better better better," as more was not better in this case. As a society we are conditioned to push for more if we want to improve, but this linear mentality proved to cause more harm than good in the end (when viewing the system as the larger community in Mali). In my previous journal, I briefly discussed the possibility of alternate boundaries to this system. In this reflection I will delve into the details of these alternate boundaries, and explore the ways in which they alter the system.

When the problem was initially assigned to Molly and her colleagues, they most likely viewed the boundary as the land where the tomatoes were grown and harvested. I think this boundary was determined by the explicitly stated assignment of increasing the stock of tomatoes. From this view, the problem was extremely concentrated, and at first glance affected minimal elements of the system – only requiring a new feedback loop. In addition, I assume that Molly and her colleagues did not have extensive knowledge of the economic market or culture in Mali. This lack of knowledge of other areas could have contributed to their narrow boundaries of the system, and resulted in their focus on only task at hand. The stock of tomatoes was sustained by an inflow of tomato seeds and the new variety that was able to survive in Mali, and the outflow of farming and selling in market. Within the boundaries of the tomato farm, this problem was "solved" by introducing a new inflow feedback loop that was able to succeed in Mali.

The temporal element of this system became relevant as time went on. Initially, the system seemed to be successful within the short-term boundaries because the stock of the tomato was increasing and the problem was solved. However, as time went on, the system reached the threshold and went over the cliff. This created the anomaly that too many tomatoes did not better people's lives, it ended up crashing the food system. However, if you kept the boundaries of the system to the short period of time after the new successful seeds were implemented, the system would still be successful because it would not include the time when the threshold was reached. This proves that just as there is not one boundary for a problem; there is not one "correct" solution.

Things become interesting when you change the conceptual boundary of this system to Molly herself. Shifting the boundary also changes the problem and the stock. In this case, the problem would be her desire to solve the problem assigned to her and advance her career. The stock could be her career, with feedback loops of "successful" and "unsuccessful" projects. This system would then require additional specification of the boundaries. If the boundaries were Molly's resume on paper, the project would seem to be a success as she creatively solved the problem she was assigned. However, Molly herself as an individual knows the cultural consequences and economic downside that happened as a result, and might not consider it a success. These different boundaries would all result in diverse problems, solutions, and apparent "success."

This example of a tomato farm has shown me that a system varies largely depending on the boundaries you set. It also is important to remember that people subconsciously set different boundaries for systems, and there is not necessarily a "correct" boundary. This was demonstrated in class by our assignment to create a potato system. We were all told to create a system around a potato, but the groups all imagined the system with different stocks and feedback loops. It is important to define the boundary when interacting with others to avoid a miscommunication regarding the system. It is interesting to think about all of the systems that we interact with on a

daily basis and automatically create boundaries for, without being aware of them or communicating them to others. I had never considered this before, and even now that I am aware of this type of thinking there are so many systems that I do not take the time to consciously define boundaries for. There are endless perspectives in this world, and I can't help but wonder how different society would be if everyone were able to recognize and understand the inherent variety of viewpoints.