

One system that I am intricately involved in is the lifespan of an ant that lives on a tree in South America (where logging for paper products often occurs). Odds are I will never come into direct contact with this creature, but by living my life I will affect the fate of this small creature. Everyday I interact with objects that require paper, from notebooks and textbooks for class, to receipts from the grocery store, to toilet paper. Paper products come from trees, and subsequently hundreds of thousands of them are cut down every year. This is an especially complicated system. Parts include every human, paper product companies, machines that transform trees into the products, the ecosystem of the tree itself, weather and climate, and many more. I think that the system of “deforestation” (broadly) is definitely a system. There are elements and dynamic relationships between parts that dictate the flow of the system; such as humans having the power and process to cut down a tree and make it into paper. These flows can also shift, for example with increasing sustainability and environmentally conscious efforts. Regardless of shifts in parts or dynamics, the system will continue to exist.

In class we discussed that often you are not aware of what’s going on until something changes. “If you’re a fish, you don’t see water.” I think my relationship to this system is somewhat similar, because I am inevitably involved in it. Fishes are inescapably related to water systems, as am I to the life of this ant, simply because of my status as a human (and our use of paper products). I am only one person in a worldwide population of humans. The only way to remove me from the system would be death, as I would argue it is nearly impossible to exist on this planet without interacting with paper. Does this mean that every single individual is a part of the system involving this individual ant’s lifespan? I think that it does, because we as the collective human population are the parts that make up the “unit” of this system: a demand for paper and therefore deforestation. I may be more involved in the system than other people, depending on my consumption of paper. However, these differences would only affect the timing of the system, and not impact my status as a part of it.

Can you still be a part of a system if your removal from the system would result in the same outcome? If I was removed from the system, I do not think that it would change the outcome of this ant’s life. Eventually, the tree would be cut down for paper use, as my lack of consumption would barely (if at all) impact the overall demand for paper. However, I still consider myself to be part of this system. While there is a possibility that I do not affect this ant’s lifespan, there is also a chance that I could directly kill it. The possibility of impacting the outcome of a system is enough to ensure a place in the system. Maybe my purchasing of a notebook put the demand over the edge, and resulted in the cutting down of one more tree. The 2-foot-long receipt that was printed (without my consultation) after I bought a small container of shampoo at CVS could have caused a butterfly effect, and resulted in a dramatic death of this ant as the tree was cut down to produce more paper for receipts. Similar to the example given in *The Systems View of Life* of a butterfly in China flapping its wings and subsequently causing a hurricane in Texas, this small difference in initial conditions can lead to a myriad of dramatic outcomes. I think the possibility of causing a butterfly effect is enough to ensure your status as a part of the system.

How do you know if you are actually responsible for the outcome of a system? You don’t. There is no way for me to stay updated on the life of this one ant on a singular tree, but that does not mean that I am not integrally connected. There is also a possibility that the life/death of the ant is not affected by this system. Its’ fate could be determined by another system that it is a part of, such as the weather where it lives. There could be a dramatic rainstorm

that washes it away one day, and it could never end up being affected by the deforestation system. But I still believe that it is a part of the system because of the *potential* to be affected.

I recently watched a talk by William McDonough entitled, “Resource Abundance by Design,” in which he discussed various sustainability topics. I was especially intrigued by his emphasis on not only doing “less bad,” but on doing “more good.” I make an effort to be environmentally conscious; I do “less bad” by bringing reusable bags to the grocery store and turning the lights off in my home, but do I do “more good”? I am not involved in any organizations working to prevent deforestation, and do not frequently develop alternatives to paper, or go out of my way to support the life of an ant. How would doing more good affect this system of the ant? I think it could potentially add parts to the system, or detract some. If we no longer printed receipts, it could save entire forests from deforestation, and potentially increase the lifespan of this ant.

This is an especially complicated system. The parts of the system are interchangeable; it has nothing to do with my personality or individuality that ties me to the system. Similarly, the system would still exist if it were replaced with a different tree and ant. Doing “more good” and designing paper products that could be continually reused would change the dynamics of the parts. I think the temporality of its’ parts and dynamics is what ultimately makes this a system: the parts will continually be connected, regardless of what that connection specifically is.