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1.

The Evolution of Complex Systems and Problem Solving as Natural Selection

1.1

I believe that the concept of evolution of complex systems is important because it emphasizes how essential a reliable process of assembly is in order to maintain a business in society. If one has a method of assembly that can be halted by a simple phone call, then it is not reliable enough to run a business. In Simon's example, Hora's technique of assembling watches that can be built upon shows why it is superior because the watchmaker can start where he left off, rather than making a brand new watch from scratch. The success of this technique is demonstrated by showing how the other watchmaker went bankrupt in the end and Hora's business continued.

The second concept I found to be of importance is the problem solving as natural selection. In this idea, Simon discusses how most problems are solved by a *selective* trial and error. Rather than the problem being solved by a random assessment of how the solution can be found, the person selects which path to take by determining if they will make progress or not. If no progress is made, then the person will abandon that specific solution. With the example of the safe that Simon discusses, the person is not going to go through all the combinations when they can hear a click when the dial is in the correct position. Why would one want to do extra work when they can have the same outcome with less work? I think this basic concept of selective trial and error relates to most people's lives. If something doesn't work then why pursue it any further if you are not going to make more progress.

1.2

I believe that Problem Solving as Natural Selection relates to my life pretty well. I'm usually not one to continue to pursue something that isn't going to work out in the long run. If I find that I can find a reason or solution that keeps me progressing through out the problem then I'll keep at it. If not, I'll look for something else that better suits me. I'm not saying that I don't enjoy a challenge. I just find that if something doesn't seem to be working out for me in the beginning and I can't seem to get a "solution" then I'm most likely better off investing my time in something else.

2. The ideas of Timothy F. Allen is interesting because it talks about how the theory of hierarchy represents the "shallow end of the pool." Allen goes on to say that it takes "a moderate anti-realist point of view, wherein there may be external reality, but it is not relevant to discourse. We only have access to experience." I take it as enforcing Simon's idea that we selectively pick our course of action by determining if we will have success with it or not.

Source:

<http://www.isss.org/hierarchy.htm>

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