

Appendix B The Tapestry of Time

from the 2018 draft of *Time and Space in Formal Logic*

Let us suppose:

Some of what we do we choose freely to do.

Consider, then, the following picture.

At every moment at which a free choice is made, the world branches. So there is a split at the moment at which I chose to sit down to type: in one branch I sit down to type, in another I do not. But that branching is not just a single splitting. Rather, there is a different path according to any of the choices I might have made: go for a walk, play with my dogs, go inspect the sheep corral, stick my head under a faucet to ease my allergies,

Similarly, the world branches depending on whether this electron moves to this or that energy level in this atom, if such movements are random. Particular random happenings and particular free choices in any combination lead each to a different branch.

At each “moment” there is a multiplicity of branchings, beyond our ability to comprehend except one branch in comparison to another specific branch. These branchings continue on. What we call “a branch” is just a particular path through all such moments at which a free choice and/or random happening occurs. We do not have any reason to believe that any branch ever stops; nor do we have any reason to think that any branch does not stop. Nor do we have any reason to believe that each point on each branch has a unique path to it: there might have been many ways to arrive at the same point. If we count memory as part of our path, though, then a conscious free choice creates a branching that cannot be reached by any other branch. But a random act of an electron could lead to a point that could be reached by other random physical happenings. This is a way in which the internal world could differ from the external world.

Laws of nature, if there be any, give the substratum of all these branchings. When I choose to sit down and type, I do not have any choice in how the chemical reactions in my blood continue. Given this particular disintegration of the radon atom, the Geiger counter will make a sound.

Each branch is real, as real as any other. These are not “alternate worlds”, “alternate possibilities” compared to the world I am in. They are all real, equally real. At a branching, the “I” up to that point continues in a multiplicity of branches, and in each one it is reasonable to say it is the same “I”, for they all come from the same branching. Thus, the “I” of this branch is the same “I” as the one in which I chose to go for a walk instead of typing because they can be traced back to that moment at which the “I”s branched apart due to a free choice. If we had the ability to see all these branches, we could say “That is one way I might have been had I done that instead of this”.

The world, then, is a tapestry of branchings so multitudinous as to be beyond comprehension in their details: only the general form is conceivable to us. The tapestry is not flowing; there is no movement in the tapestry, only threads that make up the whole. What we call “time” is a branch: the tapestry is oriented, and that orientation is what we call the arrow from the past to the future. What we call “now” is the consciousness we have of being right here on this branch. Every point on every branch is as real as any other: the unreality

of the past and of the future, for me, is that they are not at the point that I call “now” on this branch where I am.

We, each of us, choose which branch we follow, though equally, another person, exactly the same “I” up to a particular branching point, chooses a different branch, and then a different branch, and a different branch again forever. There are some branchings in which the “I” of when I was nineteen chose to be mean to her, and one branch, followed through all its multiple branchings, in which “I” from nineteen on lived a blameless life, good to the point of being saintly.

In this conception, free will is fully compatible with the assumption that there is an omniscient God who knows the future as well as the past. God would be the only intelligence that could comprehend all branches at once. He can see the point on the branch of Jesus’ life at which Judas betrayed him and see a branching where Judas did not betray Jesus: in all the branchings that followed the one choice, Judas is damned; in all the branchings that followed the other choice, Judas is saved. Or perhaps not: in some of those branchings he may have repented and been saved; in some of those branchings he could have betrayed Jesus also. Only God knows.

Now all we need is some empirical evidence to support this view.