

The Invariant Nature of Time

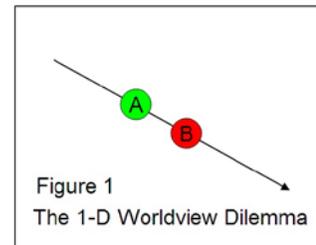
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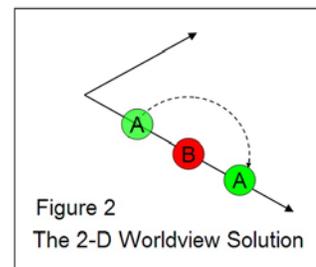
In my previous paper: [An Alternative Perspective on Spatial Dimensionality](#), I propose that Time is a corollary concept to spatial dimensionality which serves as a catch-all for explanations of reality which could be better described in spatial hyperdimensions (that is, with more than 3 spatial dimensions). At present, we humans are limited by the physics of our bodies to the visualization of 3 spatial dimensions. Our mathematics will handle more than 3 spatial dimensions, but we are handicapped by our visualization. My hypothesis is that when we are able to overcome this physical limitation we will be able to extend our worldview to encompass more and more spatial dimensions. Time is our way to organize information about the universe for all those mysteries for which we have not been able to fit entirely into our spatial dimensionality framework. This progressive increase in spatial dimensionality will move explanations from the infinite reservoir of Time to description of events occurring at different spatial locations. However, even though the number of spatial dimensions may increase without bound, the conception of Time will remain constant, from 0-D to 3-D to "n"-D. This is the Invariant Nature of Time. In this paper I will show how this concept of the nature of Time is actually the same as our current concept of Time.

Let us first consider the hypothetical case of a worldview based on spatial hypodimensionality, that is, spatial dimensionality less than 3. We can visualize hypodimensionality as a subset of our 3-D worldview. As such we can take an omniscient view. Let us visualize 1-D as a vector as shown in Figure 1. There are 2 objects portrayed on the 1-D vector. A major problem is encountered immediately with a 1-D worldview. How can objects A and B ever switch sequence? From our omniscience, we know that any practical worldview must allow such change. One way is to allow both objects to occupy the same space. However, if we allow this event, we will destroy the usefulness of our concept of spatial dimensions.

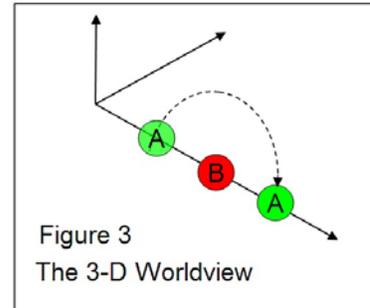


The solution is to introduce the concept of Time. Now we can say that if two or more objects occupy the same space, their Times of occupation must be different.

From our omniscient vantage, we recognize that a 1-D worldview is very limited. Now we expand our worldview to 2-D as visualized as a plane illustrated in Figure 2. The difficulty encountered in the 1-D worldview vanishes in our 2-D world. Objects A and B can easily switch sequence by moving around one another as shown in Figure 2. The Time concept need not be invoked. However, we encounter the same difficulty if the objects move along the same vector. Again, we can solve our dilemma by introducing Time. If the two objects occupy the same 2-D spatial position, then they must be doing so at different Times.



Isn't it great to be omniscient! From our superior 3-D worldview we know that we can resolve the 2-D dilemma simply by assigning the two objects different 3-D positions. In other words, the two objects can change sequence by one hopping over the other as illustrated in Figure 3. We have avoided introducing the Time concept.



Now let us analyze our current 3-D worldview. We intuitively believe that 3-D is the "real" worldview for reasons I discussed in my previous paper. In our current worldview we have found we need the concept of Time. For argument sake consider, that hyperdimensions may be possible. By extension of our discussions of 1-D and 2-D worldviews, it is logical to conclude that with a 4-D worldview, many events explained in the 3-D worldview by occurrence at different Times will be easily explained as taking place at different 4-D locations. We have now exceeded our omniscient vantage. The practical limits of our visualization is limited to 2-D pictures of 3-D space. I will let others attempt to torture a 4-D visualization from a 2-D picture.

Consider the advantages of hyperdimensionality. In a 2-D worldview, an infinite number of vectors can coexist. Likewise, in a 3-D worldview an infinite number of planes can coexist. By extension, in a 4-D worldview an infinite number of solids can coexist. This pattern suggests that with each increment in our n-dimensional worldview, our ability to describe reality will be infinitely improved!

From hereon it is best to rely on logical reasoning. Even attempts to visualize hypodimensional worldviews such as presented above are not strictly correct. 1-D and 2-D worldviews are not subsets of the 3-D worldview.

End

<http://neoperceptions.com/futureperspective/futpers.htm>