

THINK IT THROUGH: AN EXAMPLE

The advantage that mankind has over whales, which otherwise have much larger brains and therefore probably much greater thinking capacity, is that men can network. They can do so through both space and time, not just orally, but also with permanent records (libraries, etc.). This has led to strong social rules, that effect even our very mode of thinking. The salient effect is uniformity and its protection. This is also in the personal interest of those who made discoveries, but not so for those who would make new discoveries.

Illustrations of the this social phenomena can be found in abundance in Quantum Mechanics. An outstanding example is the acceptance of “nonlocality,” which both defies the principle of causality and renders certain expressions from electrodynamics nonanalytic!

In my presentation, I shall recapitulate the historical chain of reasoning that led in the first place to introducing notions requiring nonlocality. Then I shall review the history of counter analysis including that from VON NEUMANN, JAYNES, and others including the presenter.

The essential point for the basis of current criticism is that BELL misapplied the probability for correlated events. These missteps were facilitated in part by faulty notation and unclear fundamental quantum concepts. Correcting these features permits modeling all the relevant experiments or constructing data point-by-data point simulations.

Another example is asymmetric aging in Special Relativity. This feature precludes relativistic mechanics of interacting particles. Again, it can be argued that very slight changes in the interpretation and application can overcome there faults.

In both cases, the impediments to advances are not the complexity of the issue, but just the “protectionist” mentality of ensconced minorities. Young scientists are well advised not to accept current ideas too readily. In the future the most successful scientists will be those who learn the orthodoxy with reservations, and proceed to do their own thinking.