Statement: Bell's Theorem is the very cornerstone of modern physics, and Platonic Surrealism is one of the few systems that not only supports its outcome but insists upon it being true as a falsifying condition if it were not true.

The primary reason for this, is that Platonic Surrealism is:

- Superdeterministic (not based upon statistical independence or largely 'free will')
- Nonlocal (everything is innately connected to everything)

Note: all reference material that follows is courtesy of Gemini.ai

A Background for Bell's Theorem

"Bell's theorem is very much considered "true" in the sense that its mathematical derivations are sound, and the experimental results overwhelmingly support its conclusions. However, the *interpretation* of those conclusions remains a subject of ongoing debate. Here's a breakdown:

- The Theorem's Validity:
 - Bell's theorem itself is a mathematical theorem. Its logic and derivations are widely accepted within the physics community.
 - The theorem demonstrates that certain correlations predicted by quantum mechanics cannot be explained by local hidden variable theories.

• Experimental Confirmation:

- Numerous experiments, known as "Bell tests," have been conducted to test Bell's inequalities. These experiments have consistently shown violations of these inequalities, confirming the predictions of quantum mechanics.
- As experimental technology has advanced, researchers have increasingly closed potential "loopholes" that could have cast doubt on earlier results.
- The Interpretational Debate:
 - While the experimental results are clear, the implications of those results are still debated.
 - The violation of Bell's inequalities forces physicists to confront fundamental questions about the nature of reality, locality, and causality.
 - The most common interpretations involve accepting some form of nonlocality, meaning that there are correlations between distant events that cannot be explained by local causes.
 - Also as previously discussed, there are those who question the assumption of statistical independence.
- In summary:

- Bell's theorem is a cornerstone of modern physics.
- The experimental evidence strongly supports its conclusions.
- The philosophical implications of those conclusions continue to be a source of intense discussion and research.

Therefore, while the math and experimental results are solid, the "what does it all mean?" part is still being explored."

"The discussion around Bell's inequality and "statistical independence" touches on some of the most profound and perplexing aspects of quantum mechanics. Here's a breakdown:

Bell's Theorem and Statistical Independence:

- Bell's Theorem:
 - This theorem explores the implications of "local hidden variable" theories. These theories propose that the seemingly random outcomes of quantum measurements are actually predetermined by hidden variables, and that influences cannot travel faster than the speed of light (locality).
 - Bell derived inequalities that would have to be satisfied if local hidden variable theories were correct.
 - Experiments have consistently shown that these inequalities are violated, meaning that the world does not seem to behave according to local hidden variable theories.

• Statistical Independence:

- A key assumption in Bell's theorem is "statistical independence." This means that the choices made by experimenters when setting up their measurements are independent of the hidden variables that determine the outcomes of those measurements.
- In simpler terms, it assumes that the experimenters' "free will" (or at least the randomness of their measurement choices) is not correlated with anything that might predetermine the particle outcomes.

• The "Crazy" Part:

- If statistical independence is violated, it opens the door to scenarios where the measurement choices and the particle outcomes are somehow correlated, even if they are far apart.
- This could imply that:
 - There's a kind of "cosmic conspiracy" (superdeterminism) where everything is predetermined, including the experimenters' choices.
 - Or, it could open the door to other non local influence.

- Many physicists find this idea deeply unsettling because it seems to undermine the very idea of free will and the ability to do meaningful experiments. If everything is correlated, then the results of experiments were already pre-determined.
- Essentially, to some, to remove statistical independence, feels like removing the ability to do science itself, as the scientific method is based upon the idea of independent variables.

Why "Giving Up Reality"?

- The violation of Bell's inequalities forces physicists to confront some uncomfortable choices:
 - **Nonlocality:** Accepting that influences can travel faster than light, which clashes with Einstein's theory of relativity.
 - **Giving up statistical independence:** which, as stated above, feels like giving up on free will and the ability to do science.
 - Therefore, the phrase "giving up reality" expresses the feeling that fundamental ideas about how the world works must be abandoned.

In essence, the "craziness" stems from the profound challenge that quantum mechanics poses to our classical intuitions about reality, causality, and free will."

Platonic Surrealism, Nonlocality and Statistical Independence

Platonic Surrealism states among many other things that this Universe has had all choices 'made in the future', and that no choices remain. That we live in a largely 'superdeterministic' Universe.

As to nonlocality, everything is most certainly 'all connected' and both 'time and distance' are largely meaningless, as we are simply AWARENESS watching 'movies' in POTENTIALITY, and all that is of one thing only.

Now in Platonic Surrealism there are other layers, such as Primordial Consciousness and Fractured Consciousness and various 'movies' such as Universes and the like; but those are all functionally

SELF-interactive 'plot elements' in all the 'movies', all of which are 'playing at once'.

(Platonic Surrealism is also very friendly with the 'Block Universe' concepts in modern Physics but that falls out of things naturally. That is a subject for another paper).

A Quick Note about 'Free Will'

Most people get upset if you say there is little or no 'Free will'.

In Platonic Surrealism, a measure of 'Free Will' exists 'outside of time' at the level of the Monads, as substructure straddling Primordial and Fractured Consciousness, but once AWARENESS streams into a 'world' (such as ours), all the choices were already made, so that there could be something in which to experience, from a Self-imposed limited manner.

Now, some people become aware of their true nature, and in a sense, they gain a 'measure of free will' even 'here', but that measure of 'free will' has already happened 'in the future' as multiple Monads typically participate in the formation of 'worlds', including those that 'experience things here'. In short, we HAD free will 'in the Future' at least in part and now we live with the consequences of those future choices. BUT. That 'future self' has a much different agenda than the 'current' 'limited self'. That's the rub.

As kicking off then ignoring or actively 'evolving a 'Universe mathematically in the future' is generally a group effort, we have 'contributory' 'free will' but not 'absolute free will', unless of course we do the 'sin of Sophia' from Gnosticism and 'kick off a 'Universe'' entirely on our own. But then that tends to go very badly, as there is safety in numbers. Really, unfettered free will' would often be 'evil' in a sense. Better to do things with friends as it were not just to rampage around going crazy.

In short, it's best not to worry about 'free will', as we are free to try anything that we like, but we are not free to choose what we like. The 'table is set' for what we like. So, if you 'like something' and so do something, then 'if that works', then it would always have worked if it already worked 'in the future'.

If it does NOT work, that means that you either must try again, or that it will never work, as 'in the future' it didn't happen that way.

In either case, things are almost identically the same whether you had ever read these disturbing words or not, but with the added bonus, and it is a HUGE BONUS, that since all choices have already been made 'without the worrisome and unpleasant isolated 'self's participation', 'you' (the isolated self') cannot possibly 'screw up' or receive condemnation from any source whatsoever. There cannot IN TRUTH be anything to fret about. Life, death or otherwise.

You are in fact FREE. You just may not know it.

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