Against micro-theology

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1. Ken Miller: Classical Physics $\implies$ Determinism
   Determinism + Darwinism $\implies$ Deism or Atheism
   Theism + Darwinism $\implies$ not(Classical Physics)

2. The discovery of quantum reality, "solves one of the key philosophical problems faced
   by any religious person: How could a world governed by precise physical law escape a
   strictly deterministic future." (Miller, p 203)

3. "Sadly, few theologians appreciate the degree to which physics has rescued religion
   from the dangers of Newtonian predictability." (Miller, p 204)

4. "Had Darwinism prevailed in a strictly Newtonian world, we would have been left to
   view our biological history — and our future — as strictly determined as the outcome
   of any shot on the billiard table. Well, Darwinism has prevailed, and has done so
   dramatically." (Miller, p 210)

5. "This intellectual reaction [of theists against Darwinism] is common because the science-
   versus-religion argument has been framed within the classical view of physics." (Miller,
   p 210)

6. "... room for the work of a Deity can be found in the physical nature of reality." 
   (Miller, p 213)

7. "... breaks in causality at the atomic level make it fundamentally impossible to exclude
   the idea that what we have really caught a glimpse of might indeed reflect the mind of
   God." (Miller, p 214)

8. "It is thus perfectly possible that God might influence the creation in subtle ways that
   are unrecognizable to scientific observation. In this way, modern science opens the
   door to divine action without the need for law-breaking miracles."

   "Given the impossibility of absolute prediction or explanation, the laws of nature no
   longer preclude God's action in the world. Our perception of the world opens once
   again to the possibility of divine interaction." (Biologos website)
9. "...it remains a viable possibility to hold that God might act at points of indeterministic transition in quantum systems." (Tracy)

10. "...God may also act directly at points of under-determination in these causal structures and thereby turn events in new directions that serve God’s purposes in creation." (Tracy)

11. "...if theologians want to say that God acts to alter the course of events once the world’s history is underway, then there must be gaps (of the right sort) in the causal structures of nature." (Tracy)

12. "...God might act directly at points of under-determination to shape the course of events without disrupting the structures of nature." (Tracy)

13. "...God's providential care for creation might be exercised in part by acting directly through these flexible structures without forcing or deforming them." (Tracy)

14. "To create something, even so lowly a thing as an electron, is to grant it some measure of independence and a nature of its own, including inherent powers to do some things rather than others." (Murphy)

15. "...within the limits provided by the natures of the quantum entities involved and by our need for an orderly and predictable world, God is free to bring about occasional extraordinary events at the macro-level." (Murphy)

16. "...it has been the consistent teaching of the church that God respects the freedom and integrity of his human creatures. I have proposed as an axiom of my theory of divine action that God respects the 'natural rights' of entities at the quantum level as well." (Murphy)

17. "The problem with allowing miraculous intervention to turn water into wine, to heal the sick, to raise the dead, or to alter the weather is that this involves either a suspension or alteration of the natural order." (Ellis)

18. Murphy’s proposal, "allows objects and people their independent existence and 'rights'." (Ellis)

19. "...quantum uncertainty provides the necessary causal gap." (Ellis)

20. "...the necessity of microscopic uncertainty in physical laws virtually becomes a prediction of [theism]." (Ellis)


22. (Plantinga thesis 2) Special divine action might be found at the quantum level.
23. (Classical Kinematics) Carnapian state description = assignment of a unique “cell” in property space.

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24. (Classical Deterministic Dynamics) There is a law $L$ of the form: “if the state at time $t$ is $\sigma$ then the state at time $t' > t$ will be $\sigma'$.”

25. (Classical Stochastic Dynamics) There is a law $L$ of the form: “if the state at time $t$ is $\sigma$ then the state at time $t'$ might be $\sigma'$ or $\sigma''$ or $\ldots$. Each of these future possibilities is assigned a definite probability by $L$.

26. von Neumann-Kochen-Specker No-Hidden-Variables Theorem: There is no consistent truth-valuation on the set of elementary statements about a quantum system.

27. Superposition: a binary function (or ternary relation) on the set of quantum-mechanical states. $S(x, y, z) \equiv \text{“}z \text{ is a superposition of } x \text{ and } y.\text{”}$

28. Restatement of no-hidden-variables: every quantum state $z$ is a superposition of other states $x, y$, and when the system is in state $z$, it does not have a determinate value for $x$ or $y$.

29. Generalized No-Hidden-Variables Theorem: Quantum mechanics is inconsistent with stochastic hidden variables.

30. “It is evident that the biblical conception of Beeckman and Newton over-bridges the gap between Law and Miracle, natural and supernatural, and considers them as essentially on the same level. This seems to be in the line of the Augustinian tradition. To Augustine, miracle, so far from representing a violation of nature, is simply the (humanly speaking) obscure and incomprehensible in nature. ‘Nature’, he says, ‘is all order and all miracle, but the miracle is the order $\ldots$’. Calvin, too, puts forward this view of the world and of life so characteristic of the Bible. He makes no essential distinction between ordinary events, belonging to the order of nature (the rising and setting of the sun), extraordinary events (great drought), and miraculous events. The term ‘supernatural’ is not used $\ldots$. He recognizes that God has instituted an order of nature and invested things with powers, but he rejects the idea that only ‘special’ events require divine intervention. God’s providence works in the most insignificant things; the sparrow on the roof, the lily of the field are under His personal care.” (Hooykaas, The Principle of Uniformity, p 211)

31. Francis Schaeffer: philosophical troubles result from positing a strict nature-grace dichotomy.
32. “...we cannot hypostatize the concept of law, as though in our dealings with it we really had to do with the ruling representative and vice-regent of God.” (Barth CD, III.3)

33. “The creature which conditions God is no longer God’s creature, and the God who is conditioned by the creature is no longer God.” (Barth, CD II/1, 580)

34. “Augustinian quantum theory”

(a) Christian Theists feel little compulsion to “close the circle.”

(b) Christian Theists should be comfortable with “locally realistic” interpretations of quantum theory — and more generally, with a “patchwork” view of physics.

(c) Christian Theists need not share Einstein’s Spinozistic worries about quantum theory.

(d) Christian Theists should oppose metaphysical glosses on quantum theory — such as the Everett (many worlds) interpretation — that would require a Herculean (but Sisyphean) effort of synthesis from Christian metaphysicians.