



UNIVERSIDAD NACIONAL
AUTONOMA DE
MEXICO

Instituto de Investigaciones Filosóficas (bis den 17. August)

26. Juli 1968

Lieber Herr Scheibe:

Erst diese Woche habe ich Zeit gehabt, Ihre scharfe und interessante Kritik meiner Axiomatizierung der Quantenmechanik, zu studieren. Die Reise und die Vorlesungen haben es mir bisher verhindert.

Ich glaube, Sie sind meistens richtig. Meine Arbeit sollte verbessert werden, und zwar in der Richtung, die Sie vorschlagen. Nur dessen "Geistes" (nämlich, das Geistige als Referent weg lassen) sollte man behalten. Es fragt sich nun, wer es machen wird. Ich meine, Sie selbst sollten es tun, hauptsächlich weil Sie es schon teilweise in Ihren Brief gemacht haben. Also, an die Arbeit!

Über einige Punkte bin ich aber noch nicht überzeugt. (Es kann aber schon kommen.) Um meine Meinung darzustellen, möchte ich die Englische Sprache benutzen, da es zu heiss ist, um deutsche Worte zu suchen.

1. Not clear to me.

2. Right: it is a generalized Hilbert space (generalized because the norm is not always finite). As to the notation ' $\mathcal{H}_{\alpha\beta}$ ', I agree it would be preferable, to emphasize that every micro-macro couple inhabits its own private state space. But the printers would object.

3. Right.

4. A boundary condition is stated in QM2(d).

5. Q is a property, an objective trait of a quanton, while \mathcal{Q} and $\Psi^{\dagger}\Psi$ are concepts that intend to represent Q. A Q is not a "quantity", Grösse, or magnitude, but is representable by such. (Incidentally, I avoid the word 'quantity' and use instead the term 'magnitude' whenever possible.) But you are right: I should not say that Q is a function. Let me think of a successor to QM3.1(a). (Perhaps none?)

6. No, the \mathcal{Q} 's ^{represent} properties of a σ , not of the micro-macro couple. The energy operator is not one of the basic $\mathcal{Q}'s$



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Die Reihe mag die Autorenmeinungen nicht überdecken, aber sie kann sie mit Pausen aufeinanderfolgen. Dieses Motto passt für Zeitungen, für die soziale und literarische Beratung dient.

Top players, like the German legend, have been invited to play in the tournament. The tournament will be held in Berlin, Germany, from June 14 to 16. The tournament will feature a total of 16 teams, including the United States, France, Spain, Italy, Portugal, and others. The tournament will be played in a round-robin format, with each team playing three games. The top four teams will advance to the final, which will be played on June 16. The tournament will be broadcast live on television and online. The tournament will be a great opportunity for fans of football to see some of the best players in the world compete at the highest level.

Upper-middle-class people may not speak poor English. (The same upper-class people however, do not necessarily speak better English than middle-class people.) Upper-class people may not speak poor English. (The same upper-class people however, do not necessarily speak better English than middle-class people.)

... on at least two.

But the difficulties would only affect every micro-macro couplet impelled by two primary state space. Right: it is a generalised Hilbert space (see also the note at the bottom of this page). As to the question of what is to be done if there is no Hilbert space, I guess it would be appropriate, or acceptable, to emphasise that it would be better to have one's own primary state space.

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(b) SMO si bestja si nominibuo vrasenwoed A . A

function of a successor to QM3.T(a). (Perhaps now?)

No. 10, the ~~last~~^{new} addition to a set of fine pieces
marked ~~couple~~. The extra object is not one of the past



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but a function of them, for every H (i.e. the H of every micro-macro complex) depends on both σ and $\bar{\sigma}$. The incorrect assertion in QM4 that H is in the family {2} is an overlooked relic of a previous (even less correct) formulation. As to the continuous spectrum, note that ' $\delta_{kk'}$ ' in (5.1) (p. 246) is meant to be ambiguous: Kronecker or Dirac delta.

7. I don't understand why. Let me think.

8. QM3.1(c) is not quite identical with the principle of observables but rather a semantic assumption telling us what the intended meaning of the operators are. But I acknowledge that it should be stated in a different way. As to the densities, I am here introducing a difference between actual properties, like a definite energy value, and dispositional properties, like localization. (A quanton does not have a precise localization but only a disposition to obtain it: what it has got all the time is a position distribution, which its environment can change almost ad libitum.)

9/ Important. Let me think about your proposal.

10. Agreed: mine was a coarse formulation. H must be left completely general.

11. Right: a postulate concerning the transformation properties of the dynamical variables and the state vector is called for.

12. Not sure I understand you. Not every expansion of the state vector represents a superposition of states: most expansions are just mathematical tricks, i.e. purely formal affairs.

Ich werde Ihre Kritik noch wieder studieren, in Verbindung mit der Axiomatisierung der Dirachischen Elektronentheorie. (Ich arbeite daran mit der Hilfe eines Studenten.)

Es wäre so schön gewesen, dass Sie nach Montreal während eines Semester gehen könnten: dann könnten wir vielleicht zusammen Arbeiten und ich würde viel von Ihnen lernen. Es wird vielleicht schon kommen: ich hoffe, die Nationalisten werden mit der neuen Bundesregierung viel Gewicht verlieren. (Aber meine politische Voraussagen sind immer falsch gewesen!)

Ich hoffe, Sie in Salzburg oder in Wien zu sehen.

Mit freundlichen Grüßen,

Ihr



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Pitfalls: Klosspecter or Diller tests.

I got it straight away. Let me think.

of softsoats is also true of softsilks so as to be a great loss to us.

Important. Tell me things about your hobby.

10. Agreeing: this was a course of consultation. It must be left confidential.

III Right: a postural correction to transverse rotation properties of the dynamic left knee.

not make I understand you. Not even a suggestion to the
effect that there is a suggestion to state: most expeditious
method to meet this difficulty, i.e., namely to meet this difficulty.

Wortansetzung kann immer leichter verstehen! (Aber wenn es keine politische Handelsstrategie gibt gewinnt sie weniger.)

Top photo: Site of St. Spurz object in Mayan sun calendar.

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