

## Simple Quantum Mechanics

God casts the **die**, not the dice ([Einstein](#)), but where is the quantum **matrix** or “die”? Let’s look closely in Schrödinger’s article ‘The Present Situation in Quantum Mechanics’ from [1935](#), in which he wrote (Sec. 8, Part 1):

In general, a variable has no definite value before I measure it;  
then measuring it does not mean ascertaining the value that it has.  
But then what does it mean?

It means that the **intact** quantum state *cannot* obtain any inherent value by measurement, neither before nor after (Sic!) we measure it. But then what does it mean to have an **intact quantum state**, which can never “collapse” but only casts its *physicalized* “jackets” (p. 2 in [rule.pdf](#)) in the 4D world?

As an illustration, suppose you have one (quantum) fruit in your fridge. You open the door three times, and see three “jackets” from the (**intact**) fruit:



Observation 1



Observation 2



Observation 3

Fig. 1

What kind of fruit are you keeping in your fridge? People say: “[contextual](#)”, in line with [Kochen-Specker Theorem](#). Read Q2/A2 on p. 6 in [waves.pdf](#). We face **intact** quantum objects, which only cast their 4D “jackets” (Fig. 1).

The real story is far more interesting, because roughly 31% of all possible “jackets” cannot have *any* property whatsoever, and will be excluded from Hilbert space (p. 2 in [rule.pdf](#)). If all “jackets” (Fig. 1) have a mandatory property called ‘color’, the **intact quantum state** will be **non-colorizable**, so it cannot fit into any Hilbert space. Actually, we cannot normalize the set of all possible “jackets” — something *will* happen with certainty — so that the sum of their “probabilities” ([Erwin Schrödinger](#)) to emerge in the physical world will add exactly to unity, because 31% of “jackets” do not belong to this set: the **intact quantum state** does not have any *physical* “jacket”. Therefore, it has exactly **zero** “probability” to be observed at the length scale of tables and chairs. This is Simple QM. As [Asher Peres](#) once remarked, these things were well known to those who know things well.

The core idea belongs to Leibniz ([Monadology 7](#), 1714): “Monads have no windows through which something can enter into or depart from them”.

Simple QM can best be understood by demonstrating the “**non**-colorizable” phenomenon in [Psychology 101](#). Here is an experiment from [Allan Paivio](#), which you too can perform with your good old brain & mind. Imagine two digital clocks, A and B. Clock A shows 10:45 and Clock B shows 13:25. Now convert them to analog clocks, and “look” closely at their mental images: which angle between the short hand and the long one is greater? In Clock A or in Clock B? You can easily solve the puzzle, but you will not realize that you’ve been “looking” at two mental images that are just “**jackets**”, like those in [Fig. 1](#), whereas the underlying “**non**-colorizable” clock *per se* is **UN**speakable **Platonic idea**. Where does it come from? Read Leibniz [above](#).

Simple QM cannot be tested with physical experiment or observation, firstly because we could not prove nor disprove the existence of **Platonic World**, which *cannot* exist in the physical world. This is ‘**the general rule**’. But we can (perhaps) exploit the “**non**-colorizable” Platonic phenomenon with/by the human brain & mind. Consider for example [quantum tunneling](#) (Fig. 2): can we “elevate” it at macroscopic level and control it with the **brain**?

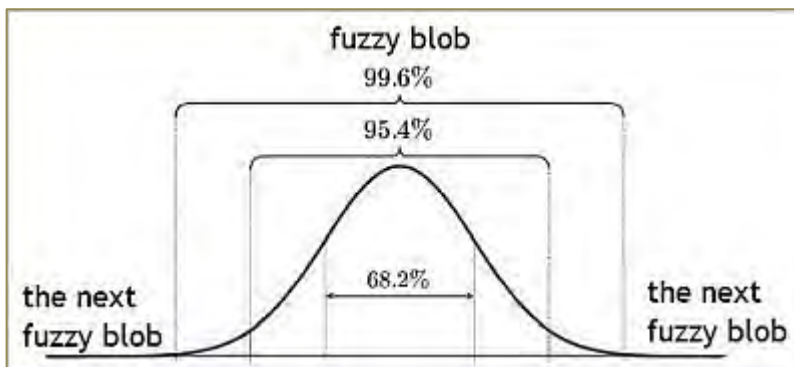


Fig. 2

QM suggests fundamental “**uncertainty**” of the fuzzy blob, because QM is a theory of choices ([Fig. 1](#)) without a **chooser**. Simple QM restores the chooser with the **intact**, **non**-colorizable quantum state: God casts the **die**, not the dice ([Albert Einstein](#)).

Perhaps some people have already shown [macroscopic quantum tunneling](#). But it will be indistinguishable from “**magic**” ([Arthur C. Clarke](#)). I wrote recently to a [group of physicists](#), hoping to learn their professional opinion on the **non**-colorizable quantum phenomenon: the ‘chooser’ in Simple QM. I’ve been arguing for nearly [25 years](#) that we operate *simultaneously* on [two layers](#), Platonic ideas and their concrete ‘here-and-now’ explications, such as the “**jackets**” in [Fig. 1](#). Perhaps all living organisms, including the [human brain](#), are driven by the *universal holomotion* (pp. 2-3 in [waves.pdf](#)) of biological and quantum “**jackets**”. Perhaps we only need [Mathematics](#).

D. Chakalov

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<https://chakalov.net/quanta.pdf>

## Explanatory Note

Einstein's dictums "[Gott würfelt nicht!](#)" and "Raffiniert ist der Herrgott, doch boshaft ist Er nicht" were [not appreciated](#) by his colleagues. People still claim that Einstein was showing some kind of "religious" attitude that has no importance to physics and should be left to philosophers and priests.

Here is an excerpt from a letter by Albert Einstein to [Hedwig Born](#) from 29 April 1924: "I find the idea quite intolerable that an electron exposed to radiation should choose of its own free will, not only its moment to jump off, but also its direction. In that case, I would rather be a cobbler, or even an employee in a gaming house, than a physicist." The reason why Einstein talks about "free will" (p. 5 in [curvature.pdf](#)) is that there is *nothing* in [QM textbooks](#) to hint at some [causal influence](#) materialized on the electron, so people wrongly believe in some *fundamental* "[uncertainty](#)" in the world.

If this was the case chosen by Nature, how come nothing goes wrong in the creation of [invariant proton mass](#) and electron orbitals? Were they created by "probabilities" (Fig. 3)? Read Erwin Schrödinger from [18 November 1950](#).

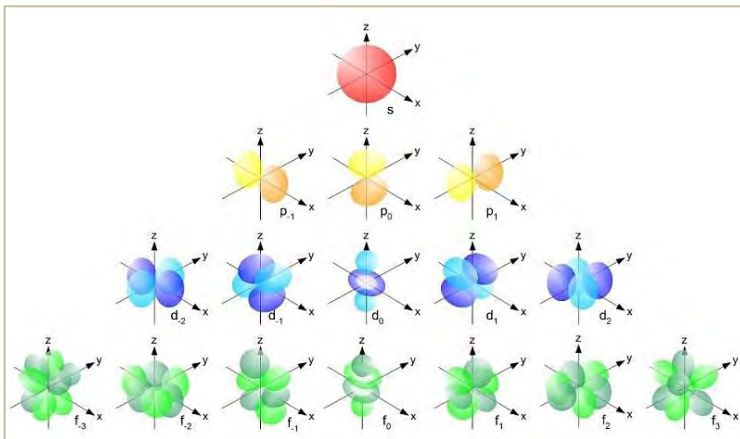


Fig. 3

There is no '[chooser](#)' in QM textbooks. "If such a theory exists, the authors have no idea what form it might take." (John Conway and Simon Kochen, [21 July 2008](#).)

Yes, there is such theory: [Simple Quantum Mechanics](#). Read p. 5 in [curvature.pdf](#).

Check out PR<sup>2</sup> (Potential Reality & Proper Relativistic) interpretation of QM at pp. 4-5 in [Modified Gravity](#). The Platonic '[chooser](#)' is empowered by the universal [self-action](#) (Fig. 4) and guides its quantum "[jackets](#)" (Fig. 1) from their potential [future](#) in the [Arrow of Time](#) (Fig. 6 on p. 4 in [canvas.pdf](#)).

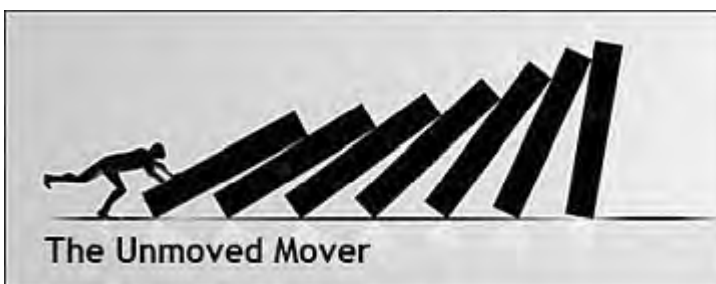


Fig. 4

The [intact](#) and [non](#)-colorizable quantum state — the '[chooser](#)' in the [quantum world](#) — is empowered by the [self-acting](#) Unmoved Mover, and springs from the [Monad](#). This is [Simple QM](#) in a nutshell. *Soli Deo gloria*.

Now to the objections and misunderstandings. Many people hold firmly entrenched beliefs that the world is either fundamentally “uncertain”, or fundamentally “deterministic”. *Tertium non datur*. But these two options lead to contradictions from bold facts (Fig. 3). The second option is based on the old idea of classical ‘realism’: the world exists as a set of definite values of physical observables, which are fixed ‘out there’. For example, the Moon (David Mermin) *is* what it is, regardless of being observed or not.

Simple QM offers a third option: the Universe is neither “uncertain” nor “deterministic”. It is fundamentally **flexible**, resembling the **human brain**, in order to accommodate the feedback from the potential **future** in the **Arrow of Time** (Fig. 6 and Fig. 8 in [canvas.pdf](#)). As Erwin Schrödinger wrote in his 1944 book *What Is Life?* (pp. 28-29), “we are here obviously faced with events whose regular and lawful unfolding is guided by a mechanism entirely different from the probability mechanism of physics. (...) We must be prepared to find a new type of physical law. (...) It is nothing else than the principle of quantum theory over again.” Simple QM is the first step at the principle of quantum theory. Then we move to the origin of *positive* mass (p. 7 in [waves.pdf](#)) of 4D *physicalized* “jackets” (Fig. 1), and **gravity**: the energy of gravitating systems is **dynamically balanced**, not “conserved”.

Another objection to my project is based on philosophy, as many people are still brainwashed by **materialism**: matter comes from matter. Nothing else. They would look at Fig. 1 and interpret it as follows: if we measure (Fig. 5) the properties of a given ‘quantum leg’ from a ‘quantum tripod’, the leg will “*appear differently colored*” (Karl Svozil), because it “**evolves**” from a quantum superposition of proto-apples and proto-pears and proto-peaches.



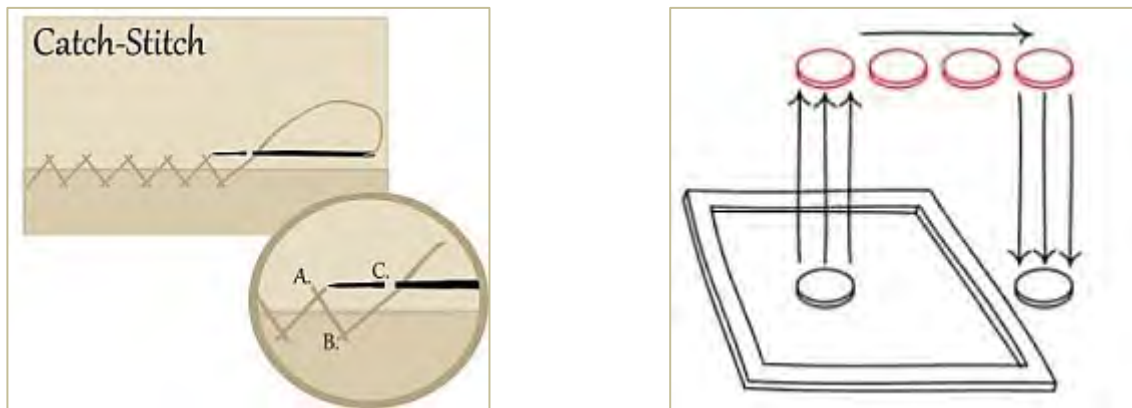
Fig. 5. Superposition of proto-fruits, each with  $\frac{1}{3}$  chance of observation.

It can’t evolve from proto-potatoes, say. Point is, every proto [whatever] has definite properties like those of the **Moon** ‘out there’, only “**hidden**”. In 1960, Ernst Specker proved such omniscience (*Infuturabilien*) impossible.

According to the doctrine of **trialism**, the origin of matter and psyche — the Monad of **Leibniz** — cannot have any windows toward matter nor windows toward the psyche: see Fig. 13 in [book.pdf](#). Thus, the Monad is the ultimate cutoff on our efforts to understand Nature with **true | false logic** and move further toward ‘**turtles all the way down**’, *ad infinitum*. Nature is smarter.



In summary, the non-trivial connectedness of events (Q) in Platonic 4+0 D spacetime, **re-created** by the **Arrow of Time** at every consecutive event Q 'here and now' (Fig. 6 on p. 4 in [canvas.pdf](#)), denies "nonlocal" transitions (Fig. 6), including the alleged "linear connection" in GR ([Laszlo Szabados](#)).



The area outside the fabric is **zero**. The "extra dimension" ([John Norton](#)).

Fig. 6

All interactions are either local or **quasi-local**: read pp. 7-8 in [canvas.pdf](#). As I wrote earlier ([p. 2](#)), quasi-local interactions could produce **macroscopic quantum tunneling**, which may look like some weird "magic". Only it isn't.

In practical terms, a neurosurgeon trained in **spacetime engineering** could perform non-invasive brain surgery to otherwise **inoperable brain tumors** by quasi-local transfer of tumor cells outside the brain, directly in the trash can. The advanced **spacetime engineering** can perhaps enable us to fly like a 'gimbal' along quasi-local path in 4+0 D spacetime. And **much more**, if we learn to scale up and control the **gravitational rotation** with the **Fifth Force**.

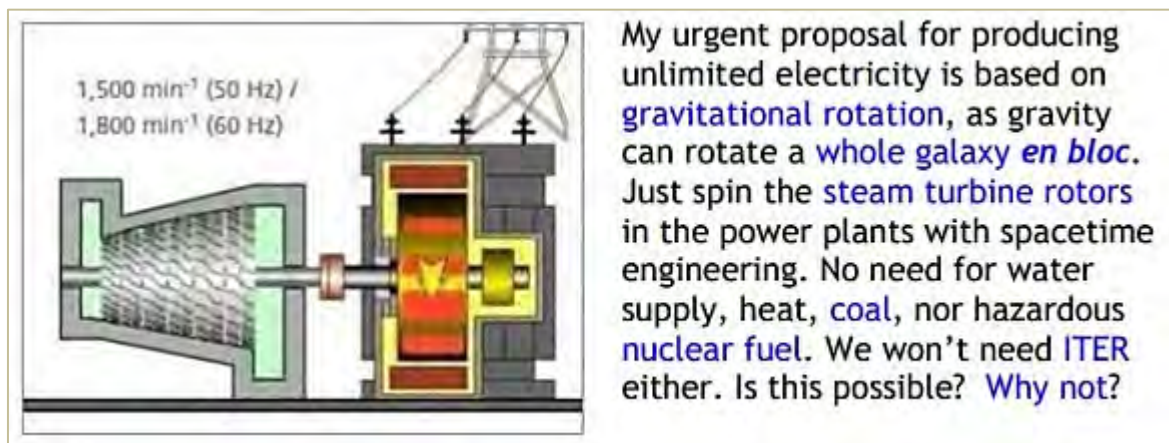


Fig. 7. Read [modified\\_gravity.pdf](#) (9 pages) and [Proposal.rar](#)

We urgently need new **clean energy** to avoid the upcoming climate crisis. Read A5 at p. 11 in *Universal Holomotion* ([waves.pdf](#)). Time is running out!

## Questions and Answers

Q1. What do you mean by “jackets”?

A1. To avoid misunderstandings, notice my approach to theoretical physics at pp. 1-2 in *Universal Holomotion* ([waves.pdf](#)). The idea of John’s jackets is explained on p. 2 in [rule.pdf](#). We observe three *physicalized* “jackets” in [Fig. 1](#), but not the **intact** (Q2/A2 on p. 6 in [waves.pdf](#)) quantum state John. Another John, this time with two “jackets”, is depicted below.



Fig. 7. Kurt Levin’s *Genidentität* in *Simple QM*.

In the quantum world, the set of all **intact** quantum state(s) ‘John’ is both ‘one’ and ‘many’, which is why such set has indecisive cardinality. It is a perfectly continual **pre-quantum** ‘dough’ of what [Werner Heisenberg](#) called “just in the middle between possibility and reality”. It is *both* the ultimate ‘chooser’ in the [quantum world](#) (God casts the **die**, not the dice, [Einstein](#)) *and* the gravitationally-neutral “stone” (pp. 2-3 in [Modified Gravity](#)). Also, read closely [Psychology 101](#) and notice that your [brain & mind](#) works with a perfectly continual ‘dough’ of **UN**speakable [Platonic ideas](#) as well. This is the cognitive & [quantum-gravitational](#) “vacuum” in spacetime engineering ([p. 5](#)) — the *atemporal* Platonic “thoughts” of matter-and-psyche called in the doctrine of *trialism* “[trunk](#)”. We are *physicalized* “jackets” emanating from our Platonic ‘John’ rooted on the *windowless* [Monad](#). Simple, isn’t it? And then we have [universal holomotion](#) in terms of [gravitational radiation](#).

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