

TWENTY-EIGHT CLANDESTINE AND TOXIC POSTULATES; SOME REMEDIES.

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1. TWENTY-EIGHT CLANDESTINE AND NOXIOUS POSTULATES.

When a branch of scientific teaching has a very low yield, it is time to inquire why and what flaws burden it. Maybe a better didactic would be enough? Alas, in many occurrences, the flaws are old professional faults, never corrected, which fossilized and became institutional. For instance, QM teaching has a very alarming low yield [Krijtenburg2017]. The inquiry revealed serious mistakes that originated in the territorial war against a minority of two pioneers in 1927. In 1927, the excuse was that no radar was known, no electronic nor neutronic radiocrystallography, no anti-reflect layers, and no spectral apparatus for measuring some dangerous gas existed either. In 2025, we do not have those excuses. However, many essential pieces of knowledge never cross the distance from one lecture room to another on the same campus.

Let us list their twenty-eight surreptitious postulates, taught everywhere:

1.1. Anti-optical and corpuscularistic postulate. This postulate of the existence and pertinence of corpuscles is extrapolated from macroscopical physics, though Microphysics is distant from it by the Avogadro-Ampère constant. Implicitly, the photons and the electrons are taught as corpuscular, which contradicts all the experimental corpus of interferences, radio-crystallography, anti-reflect layers, Ramsauer-Townsend transparency [Ramsauer21][Townsend21], and interferential colors. Corpuscularism against the facts of the optics was the worst possible idea, but since 1905, they have not caught any other idea.

1.2. Anti-relativistic postulate. As Isaac Newton's god was in charge of simultaneously and instantly seeing all, *so*, Newton's time must exist, with the properties of being unique, ubiquitous, universal, and valid at any scale.

Corollary: Inveigh against the two retrochonus components present in any solutions of Dirac's equation for the electron (1928) [Dirac28]. Inveigh against the negative masses and negative energies implied by Minkowski's formalism (1908). Inveigh against any retro-symmetry in Microphysics.

1.3. Denial and censoring any plane-polarized light. Though the bees, the photographers, and the astronomers use the plane-polarized light with profit, denying it remains necessary to the corpuscularistic and anti-relativistic postulates listed above. Sure, by riveting his eyes on the mathematical formalism, one can convince himself that he could simulate a plane polarization by pairing two helicoidal photons. However, on several kilometers, it remains impossible to maintain such a pairing in frequency, phase, and direction of propagation. Moreover, their corpuscularistic postulate forbids any efficiency to quarter-wave or fraction-of-wavelength plates, which have no difficulties with undulatory optics from Fresnel, 1819. Following Maxwell's equation for electromagnetism, any photon may have any polarization between the pure circular and the pure plane. They hide it from their students.

1.4. Denial of the optical properties of crystals, birefringence in particular, and of the properties of dextrorotatory or levorotatory solutions. Visible light is MUCH larger than the crystal lattice or the quasi-lattice of glasses. It does not see many crystal details, which greatly interest metallurgists, electricians, and opticians. For light, any crystal with cubic symmetry is isotropic. "*And yet!*" exclaims the metallurgist. Light can only discern in birefringent crystals the property of being "uniaxial" like icelandic spar or "biaxial".

1.5. Denial and censorship of radiocrystallography. In mineralogy or metallurgy laboratories, we use radiocrystallography daily, either with X-rays, the most preferred, or with electrons. Fresnel's optics (1819) are fully suitable for these crystalline interferences, and so is also Scherrer's law [Scherrer1918] at their limit. For each photon, for each electron, or for each neutron. So they have to hide this from their students.

1.6. **Tribal postulate: anti-Schrödinger, anti-Broglie, anti-frequency.** Obligatory negation of all frequency phenomena other than electromagnetic and massless. Censoring the intrinsic frequencies of particles with mass (Louis de Broglie's spinorial frequency: mc^2/h , and P.A.M. Dirac's electromagnetic frequency: $2mc^2/h$). Moreover, retaliation against those who do not participate in the denial of reality. If we take the large two-volume course on QM by Claude Cohen-Tannoudji, Bernard Diu, and Franck Laloe [Cohen-T_Diu_Laloe73], the word "frequency" appears once on page 18 and disappears for good on page 18. They never make any value explicit.

1.7. **Postulate of macroscopic geometry.** The Göttingen-copenhaguists postulate the self-similarity of space and time at all scales, with unlimited extrapolation. Moreover, they extrapolate to Microphysics the statistical irreversibility of macrophysical time, and extrapolate also the infinitely fine topology inherited from the 19th-century mathematicians, where it has no more validity under the atomic limit. They postulate that the two electrons of a helium atom are geometrically distinguishable from each other.

1.8. **Geometric corollary: *something very small*.** Postulate that one can always find something smaller, allowing one to define that something, an electron for example, is "small", corpuscular, or even "point-like". No luck: it does not exist. However, it does exist for a mold spore: biologists have the right microscopes, or scanning electron microscopes if necessary. Sufficiently accelerated (0.1 V is enough...), the electrons have much smaller wavelengths than the spore.

1.9. **Macroscopic geometrical corollary #2, anti-absorbers:** "*There are no absorbers in Microphysics, just corpuscle artillery, just like in macrophysics*". As a result, they must deny the totality of spectral absorptions, all dyes, and all colorimetric and spectral methods in analytical chemistry.

1.10. **Denial of the acquisitions of solid-state physics.** In solid-state physics, we deal with phonons, which, as sampled each on tens to billions of atoms, can never become "*corpuscular*", nor even *very small*. However, the conduction electrons of metals interact with these phonons, though each phonon stretches over tens of interatomic distances or even much more. It is incompatible with the mythology of "*something very small*". Moreover, each electrical contact used in electricity, each junction used in diodes and transistors is possible only because each conduction electron is a longer wave than the thickness of the junction. Samples of knowledge not allowed to cross the distance between two lecture halls on the same campus.

1.11. **"Positivist" camouflage for a theoretical and fictitious "observer":** We criticize a systematic appeal to the dimensions of macrophysics, with its mythical "*observer*", to govern microphysical realities. Big animals with slow perceptions (out of proportion with the intrinsic frequencies of Microphysics, of the order of zettahertz or even yottahertz), they place themselves right in the middle of the image supposed to govern Microphysics. Instead of looking for and adopting the relevant analysis meshes for Microphysics, and the relevant experimental corpus, they deny the realities, and place the territorial comfort of the cult leaders above everything else. By dint of impoverishing the experimental corpus, they send to the trap door (to the *Memory Hole*, wrote George Orwell) the totality of the experimental results acquired throughout the 19th and 20th centuries in interferential optics in incoherent light, in particular all the experimental data proving and using the coherence lengths and durations for each photon. These wave results and laws are also used in radiocrystallography, whether with X-rays, electrons, or neutrons.

1.12. **Anthropocentric cognitivist corollary:** "*Physical laws are made to satisfy the curiosity of the copenhagenist physicist, thus to provide him with information*". If the copenhagenist physicist can no longer determine the new position of the submarine, then the submarine is "*in a superposed state*"! Banesh Hoffmann *scribit*... QM teacher's trick: sometimes "*state*" is supposed to designate what is, an actual state of something that exists, sometimes it designates only our knowledge and ignorance, affirming that reality does not exist, but that only the little bit of knowledge that in principle we have of it exists. To dare to distinguish the microphysical realities from our knowledge of them is, in the eyes of the Göttingen-copenhaguists, a crime of heresy by a relapsed person. The fact that we arrived some fifteen billion years too late to dictate that the physical laws would be made for us, does not alert them.

1.13. Anti-Fourier corpuscularism, and anthropocentric corollary: The properties of the Fourier transform were known for a century: for any wave packet the product of its indefiniteness in frequency and its indefiniteness in length is bounded lower. In less precise but more popularized words: the product of the "length" of the wave train, by the width of its frequency spectrum, is bounded lower. Now, for each photon, this packet of electromagnetic energy has a $h\nu$ content fixed by its central frequency ν , counted in the same frame of reference, for example, that of the laboratory; the shorter the photon, the higher its local amplitude, while the shorter it is, the more spread out the spectrum of frequencies; in other words: the more imprecise and ill-defined the momentum and the energy are.

The Fourier transformation and the dilation rule: if you double the length of a wave train at the same center frequency, you define it twice as well in frequency, and the width of the frequency spectrum around its center is divided by two. In other words, the central frequency peak is twice as high. In the limit, a perfectly defined frequency corresponds to a wave train of infinite length and duration, extending from the dawn of time to the dawn of time. The product of the indefiniteness $\Delta\nu \cdot \Delta x$ is constant and proportional to h ; we convert the frequency into a momentum p , $h\nu/c$ for a photon. This constant $\Delta p_x \cdot \Delta x = \frac{h}{2}$ ($0,52728633 \cdot 10^{-34}$ J.s/rad) is universal for any individual wave: photon, electron, neutron, proton, etc.

In the ideally simple case where the amplitude of the wave train is a Gaussian and so is its spectrum, one does the product of the average widths of these Gaussians of known areas.

Werner Heisenberg relabeled the Fourier transformation as Heisenberg's (**corpusculistic**) Uncertainty Principle. A translation fantasy: *Unschärfeprinzip* could be more correctly translated as the Principle of Imprecision or Indeterminacy. Nevertheless even so, the original egocentric fault of methodology remains: to believe that precision is a due-because-corpuscle, and to resent that Nature does not provide this due. Heisenberg persisted in believing in corpuscles, and here, cruel Nature conspired to hide the "precise position" and the "precise speed" from him. What a cruel "uncertainty"!

1.14. Wigner-Neumann animist postulate. *"I, a big macrophysical animal who declares myself "observer", am so almighty that I have the power to delay the absorption reactions and the resulting decoherence indefinitely, just by not observing!"*

Erwin Schrödinger's mocking apologue, published in 1935, of the "living-dead" cat until an august Göttingen-copenhaguist physicist bends his august attention to the result of the experiment, openly mocked the Wigner-Neumann delusion.

1.15. Postulate of separability and delimitability (or postulate of triumphant laziness): Since we can only write a bounded system, and since we are all eager to lighten already very heavy writings, THEN, in truth, a quantum system is quite naturally bounded, reasonably separated, and independent from the rest of the world. (Except that this is grossly false).

1.16. Magical and supernatural postulate, or if you prefer gremlin and poltergeist: Postulate that each quanton (electron, photon, proton, neutron, etc.) is exempt from all physical laws, but that magically, in large numbers, its statistics join physical laws, while progressively losing the corpusculistic characters that were postulated. They never say what would be the physical miracle that would transform their individual not-any-law into a collective law.

1.17. Anti-undulatory postulate: Even when it is calculated, and chemists use it successfully daily, they postulate that the matter wave, according to Schrödinger's equation, remains fictitious, without any physical meaning; its only use is to be elevated at the hermitian square to obtain the probability of apparition of the magical and supernatural corpuscle. This goblin and poltergeist corpuscle can explore "beyond the planet Jupiter" while traveling from the electrons cannon to the cathodic screen or the microchip to engrave. Feynman and Hawking wrote it, so it must be true...

1.18. Anti-frequency and anti-metrological postulate. Only the technological advances in radio-electricity and piezoelectricity since the Second World War have familiarized us with precise metrology of frequencies in electromagnetism. Defining a frequency to within 10^{-5} requires observing and measuring at least one hundred thousand periods. But one hundred thousand periods of a photon or an electron, or even much more, is incompatible with the corpuscle ideation that is taught everywhere: much too long and cumbersome! Hence, the tactical conclusion to save the corpuscularist ideation is to deny and run away from any quantum's periodic characters.

1.19. **Confusionist postulate:** Deny the atomic limit in waves, and prescribe to confuse all kinds of "waves" with each other, each individual wave with any collective of waves, and these collectives with waves of gravity or elasticity in a collectivity, and mathematically identify all three, the individual, the collective, and the waves in collectivity. Born-Heisenberg Göttingo-copenhaguism is based on this trick, with "*instantaneous wave packet reduction*", and it has been going on like this for ninety-eight years.

1.20. **Anti-radio-electricity censorship, anti-directivity.** Discourage students from learning about the conditions of antenna directivity, known from the development of radar during WWII, then radiotelescopes, microwave beams, and telecommunication satellites, and forbid them to make the connection with **Zur Quantentheorie der Strahlung** [*On the Quantum Theory of Radiation*] (1916 Zürich, 1917 Phys. Zs. 18) where Albert Einstein demonstrates that every photon is perfectly directional and transmits exactly the $h\nu/c$ momentum [Einstein16]; an article not to be known at all, by the way.

1.21. **Anti-Dirac, anti-Schrödinger censorship.** Hide from students that out of the four components of the electronic wave solutions of the 1928 Dirac equation, two are retrochronous (go backward from our macro-time, valid at our scale).

1.22. **Tactical postulate, anti-semantic.** A twenty-second postulate - not scientific but tactical - is invoked in every controversy: it consists of agglomerating quantum formalism and Göttingen-København semantics, and teaching that they are inseparable. For this, the very notion of semantics is denied. This is for strictly tactical reasons. Whenever the formalism we share has won a victory, they have shouted that this proves their Göttingen-copenhaguist semantics, and that any other "*is just philosophical preferences devoid of any interest*". In his "**Philosophy of Physics**", Mario Bunge made many enemies: he asked that semantic axioms be made explicit instead of remaining clandestine [Bunge73]. But we are proving daily that we can throw out their copenhaguist semantics without throwing out the formalism - strictly deterministic and strictly undulatory - which they immediately deny.

1.23. **Göttingen postulate. There are only states, the transitions are juggled away, and have a null duration.**

Already in 1927, coming back perplexed from the Solvay congress, Erwin Schrödinger wrote: "*Curious physics, which concentrates on states, and passes over transitions in silence!*"

The duration and physical properties of transitions, such as the coherence lengths of photons, revealed by the interference phenomena first described by Thomas Young, are incompatible with the corpuscularist postulate.

1.24. **You will not peep under the skirts of the Quantum!** You will not tolerate any investigation in Subquantum Microphysics, as the Quantum is the unbreakable horizon, by which we are the ultimate modern forever after.

1.25. **Postulate of pack superiority. *We are the ultimate Moderns forever! And after me, there will be no other prophets because the New Physics is complete! And the unbelievers and vile objectors are just dim-witted, brain-damaged, and retired cavalry colonels who try to return to classical physics.***

All sects and most packs sell narcissistic prostheses to their followers.

The more calamitous the performance of scientific education, the more it *proves the superiority* of our tribe over the remaining humanity, that we look down from so high. Niels Bohr's quote: "*If you think you understand Quantum Mechanics, it is because I have not explained it to you properly*" that no one is allowed to understand the trickery that we profess.

1.26. **Dispense with reading the original memoirs, submit to the rumor.** So boasted Anatole Abragam, pages 67-68 of *De la physique avant toute chose*: Postulate that the professors and elders have understood everything the first time, have not fudged anything.

1.27. **Prohibition to learn and practice the crafts of heuristics.** Whoever is experienced in the crafts of heuristics or the **art of finding**, such as Zwicky's morphological analysis matrices [Jantsch1967], or the "*crushing grids*" (increase, decrease, invert, combine, modify or move, sensorialize) [Fustier1976], is likely to quickly see the logical impasses imposed by those of the Great Ancestors who defeated and eliminated the other pioneers, and the continuation of these malpractices in the present.

1.28. **Never modularize nor make corrigible the taught doctrines.** 28th surreptitious postulate, inherited from the "*vector product*" trick of 1888: Never modularize nor make the taught doctrines corrigible; always code with a soldering iron. To force the following generations either to swallow the mistakes of the previous generations, or to throw thousands of books in the trashcan and rewrite them blank.

Goddamn! Nobody is allowed to question the total victory of Oliver Heaviside and the British Empire over all continental physicists and mathematicians! That would be anarchy!

Donnerwetter! The total eradication of Joseph Fourier and Erwin Schrödinger and the total un-Schrödingerization of Schrödinger's matter wave equation are now coded with a soldering iron in all QM textbooks. As a result, the highest leading lights remain in front of Dirac's electronic wave equation and its calculation by Schrödinger [Schr30], the properties of the Zitterbewegung, like a hen in front of a penknife.

And it allows selecting students - including future professors, and this from generation to generation - on their ability to accommodate the worst absurdities.

2. TWELVE POSTULATES FOR TRANSACTIONAL MICROPHYSICS

Let us recall the twelve postulates practiced in Transactional Subquantum Microphysics:

1. **The absorbers exist.** "*Corpuscular aspects*" do not exist. In Transactional Microphysics, no description is valid until it explicitly mentions the absorber.

Consequently, a comprehensive understanding of the physics of absorbers must replace hasty slogans.

2. The phase unit is involved in Planck's constant; Planck's action per cycle, in joule per hertz, is not the Maupertuisian action.

3. **De Broglie-Dirac postulate:** As soon as a particle has a mass, then the intrinsic de Broglie's [Broglie24] and Dirac-Schrödinger's frequencies [Schr30] each play their role: the de Broglie's frequency mc^2/h for each interference of a quanton with itself, the Dirac-Schrödinger's $2mc^2/h$ for any electromagnetic interaction, for example, Compton's scattering [Dirac58][Lavau2011][Dirac33][Gouanere2005][Rivas2008].

4. **Fermat-Fresnel postulate:** For any individual wave, the real paths arrive in phase, possibly to within an integer number of periods (then it is an interference). Hence the geometry of the Fermat's spindle-shaped channel between the absorber and the emitter [Lavau2025]; "channels" in the plural in case of interference on the path.

5. **Every photon has an absorber.** A photon is a successful transaction between three partners: an emitter, an absorber, and the space that separates them or the transparent or semi-transparent media that separate them, which transfers by electromagnetic means a loop quantum \mathbf{h} , and respectively a momentum-energy that depends on the respective frames of the emitter and the absorber.

Complication n° 1: in Rayleigh scattering, the transaction involves five partners for one photon: the emitter, the absorber, the pinching and turning dinitrogen molecule with recoil, and the two intermediate spaces crossed.

Complication n° 2: An Aspect-type experiment involves five partners, with two absorbers for a single emitter of two complementary photons.

Complication n°3: It is the difference between two **stationary** states of the emitter or the absorber (or both) that sets the photon transaction at a Planck's loop quantum, \mathbf{h} , via the Schrödinger equation [Schr26]; but if neither the emitter nor the absorber are held by stationary states, for example the electron in a synchrotron on the emission side, then what miracle can obtain the second quantization traditionally postulated by the official church? We do not have the answer.

On the absorber side: accelerating an electron by a potential difference, whether in a cathode ray tube or a linear accelerator, we do not know how to quantize the absorbed electromagnetic wave: zero stationary states before/after the accelerated electron.

6. The properties of crowds of individual waves follow from the properties of the individual waves, not the inverse. A beam of light is not "*A wave*" but a crowd of individual electromagnetic waves. A beam of electrons is not "*a wave*" but a crowd of electronic waves, without any phase in common.

7. The arrow of the macro-time follows only from thermodynamics, and not from the evolution laws of Microphysics [Lavau2020].

8. Isaac Newton's god, in charge of seeing everything simultaneously, does not exist. **Isaac Newton's time**, supposedly a universal and ubiquitous parameter, **does not exist either**. At most, there are local macro-times, simple local statistical emergences. We distinguish the macro-time of macro-systems, such as the laboratory, from the micro-times in which all the trials and errors of the Broglie waves that lead to successful transactions are inscribed.

9. **Kirchhoff's principle of Retrosymmetry**. In our weak gravity, far from a Schwarzschild horizon, any real optical path is reversible [Kirchhoff1860]. Emitting a divergent anti-photon or absorbing a convergent photon is the same thing. Emitting a divergent photon or absorbing a convergent anti-photon is the same thing. And so on for any individual wave, electron, neutron, proton, etc.

10. No, it is impossible to isolate a quantum system, as one isolates its equations on a blackboard: it is impossible to screen out the de Broglie-Dirac background noise. It is impossible to predict which transaction will emerge from this noise nor when. The involved frequencies are inaccessible on a human scale; Ashby's required variety theorem [Ashby56] is there to ruin all our fantasies of omniscience; moreover, the innumerable micro-times at work are bidirectional, orthochronous as well as retrochronous - Dirac obliges.

11. More generally said, we also investigate under the skirt of the Quantum. We allow ourselves to go beyond this "*unbreakable*" horizon.

12. Plus the **moral principle**: we forbid ourselves to censor the experimental results that embarrass the doctrine in power.

It is incorrect and contrary to scientific ethics to conceal from students so many experimental facts that embarrass the Göttingen-copenhaguists: all the spectral absorptions, all the interferences such as anti-reflect layers, quarter-wave blades, interferential colors, the Goos-Hänchen effect in plane polarization and the Imbert-Fedorov effect in circular polarization, proofs of the non-negligible width of each photon. A vast list. They have hidden the Ramsauer-Townsend resonant transparency from you, which is strictly undulatory and established since 1921. If the electron is always undulatory, how will they keep their mysterious *wave-corpucle dualism* that impresses so much the stunned crowds? Many other experimental results are daily but are incompatible with the corpuscular ideation of the Göttingen-copenhaguists.

There is clearly an economy of postulates and a large economy of concepts.

The properties of the Fourier transformation are simply inherited, not erected as some new principle.

The magic concepts of "*superposition of (corpuscular) states, entanglement (of theoretical corpuscular states), measurement, psyche and consciousness of the observer*", well, we do not care about them: **Sire, I didn't need those hypothesis.**

3. CONCLUSION

Sure, there are lots of faults in didactics in teaching QM: a huge lack of experimental references, and a lack of links with the other neighboring subjects and crafts. Alas, the roots are in the not-so-scientific nature of the QM doctrine itself: a theology so despising against the other sciences, in a dangerous isolation from the unchosen experimental facts.

For 1927, the hegemonic teaching of the Göttingen-København tribe has been like a knight who has sent his horse across the ford. The horse and the formalism came on the right riverside: undulatory and deterministic. The knight in armor remained on the corpuscular riverside, and crows: "*Nobody can understand Quantum Mechanics!*". He took the appropriate means to understand nothing.

To unfinished or adulterated science, dismaying teaching output.

No more all this jumble with Transactional Microphysics: the absorbers exist, their properties exist, and some of them are quantic. Frequencies exist, and Metrology exists; it leaves no room for corpuscularism.

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