Literary Inexpertness of Physicists

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Abstract: Scientific analysis, experiment steps, results and interpretations are conceived in the brain, as well as imagination and word and concept coding. The proper reporting of results is also critical. Especially in theoretical physics, linguistic skill and carefulness while writing are becoming a more pressing need in new subjects at the horizons of existing knowledge. There are people from other fields who are ready to misunderstand and spark unnecessary discourses/conclusions; they produce books from a few bytes of information such as "yes/no/maybe"; consequently, nonscience or occult misinformation emerges, examples of which abound in the fields of special relativity theory and quantum physics. Thus, science must not use the phrases that supported the Paleolithic mind.

Keywords: Haiku; Atomically logic; Perfunctoriness; Quantum theory; Special relativity; Secret.

Introduction

Especially in theoretical physics, the intuitions on the threshold of the known unknown are within the concept of "new", and each new phenomenon is initially subject to the scientist's approach. First analyses are usually not perfect; existing expressions for experiences may not coincide with these intuitions, and difficulties in expression may emerge. Those who are interested may have experienced this obstruction, where their sentences have turned into rhymes and riddles. The degree of communication efficiency depends on an individual's personal capacity, and literary skills are not compulsory for physicists; there is no protocol specified for expression. However, simplicity and pureness are encouraged/advised for scientific writing.

On the other hand, the semantic content in a scientist's mind may not exactly resonate with the reader's brain. Greater efficiency of communication could be achieved in technical texts, but there have been instances where lack of expression or carelessness in some topics of theoretical physics can induce great/marginal philosophical and scientific caricatures as akin to the proverbial butterfly effect.

In Japanese haiku poetry, expression with minimum words is an essential rule; the other and more important rule is to ensure that the potential for misunderstanding statements should be minimal. This second rule is indispensable for scientific texts. Moreover, some expressions can be repeated using different words to avoid misunderstandings and frothing.

Of course, content is paramount. When the content is not rich, the skill of expression grins in form. Language is -in essence- a tool. The perfect expression of inadequate and ambiguous analysis is asymmetrical, as is the poor/careless expression of a research with perfect objectivity.

Unless physicists have a special interest and has not developed an awareness of this, they may not realize that they are sloppy in expressing a finding that has been obtained through arduous processes and that can be synthesized only in their mind. When they read what they have written, they may not need to express themselves again and more carefully, as they identify with the findings/interpretations in their mind. Preparing a text that ensures that others can fathom the same content requires special expertise and practice. Even if the scientist does express their view somehow, are their expressions appropriate? This requirement is left to their personal capacity.

Quantum mind entanglement

In quantum or particle physics, the first approaches may encompass solutions with missing factors and inadequate comprehension. When their sharing/reporting is accompanied by lingual incompetence, deductive and amazing/marginal interpretations such as "quantum philosophy" or "creating the matter by thinking" can emerge. Especially, the new idealism staff and mystic fanatics act like hunters in this regard.

If the scientist has carried out their analysis comprehensively, it means they have internalized the subject. If there are inconsistencies because of lingual negligence, these can be resolved with subsequent attempts at using the correct expression; consequently, exact understanding may arise over time.

In quantum/particle physics, we cannot observe all actors and the flow of experiments. The physicist plans some experiments to prove their intuitions generated from analysis and previous experiments' results and then interprets the new results. We can exemplify this type of experiment through a known application.

Let us say, in a lottery, a ball drops from spinning orbs containing balls with numbers from zero to nine. In quantum physics, we cannot observe a similar event because of the particle scale; the experimenter guesses the presence of the ball with the number 6 and sets up an experiment with enough repetitions to prove the existence of ball 6.

We can see and perceive the lottery event in all its nakedness. However, an unseeing physicist can discover the existence of a particle that they sensed mentally. When they do not practice lingual diligence when writing, readers can conclude that it is an "invention", not a "discovery". There were those who said "he designed and created" and they wrote books such as "is the universe a simulation?", "mental projection", "secret".

However, no matter how many experiments the physicist performs, he cannot detect, for example, a ball marked 144.

George Berkeley (1685–1753), the Irish philosopher, claimed that only souls and their ideas exist in the world, whereas matter does not. He said, "Everything we perceive, we create in our minds". There are those who reach such a conclusion/interpretation in reasoning about reality. Undoubtedly, this opinion ends when the person is put in the lion's cage blindfolded or when his leg is broken and when he stays hungry for about 24 hours. The person returns to the opinion of "there is such a thing as truth". If anyone objects to this, it can be said "It is the same mind that misinterprets perception". Berkeley was a pastor. The period in which he lived was the advancement process of science, and as science was perceived as a threat to faith, he wanted to guard against the risk of breaking away from idealism.

The same motivation can cause the results of quantum experiments to be read in the context of "the experimenter mentally created or can create matter".

Whereas clearly and unequivocally, it is impossible for the quantum experimenter to drop ball 144 from the lottery spheres because there are only ten balls, marked with numbers 0 to 9, and only one of them can fall. Similarly, the experimenter will be able to discover/detect one of these ten particles with his experiment. As the whole process of quantum experiments cannot be observed and monitored, the factor of whether the particle prediction includes the potential particles is neglected; that is, if the target particle is in between the others, the result of the experiment becomes a "discovery". Those who ignore this option stretch the result to the interpretation of "creation by thinking" and resort to excess deductivism.

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¹ https://en.wikipedia.org/wiki/George Berkeley

Analyses of new issues (at the frontiers of the current knowledge base) take the first approach pattern. That is, shortcomings already exist in the first approach²; their conclusions and interpretations may also contain some errors. Adding to this is the fact that an experimenter or scientist cannot be a litterateur (physicists are not expected to be linguists or literature-related people anyway; not even a consensus/protocol is available on this subject). On the other hand, some philosophy enthusiasts -who are hungry for philosophic meaning- can project their imaginations enough to produce a book from a few "bytes" of information in these reports and immerse themselves in fantasy interpretations called "quantum philosophy". Not content with this, they may also poison minds with the flight of "asking from the universe". The well-directed expression of the belief that "if you want from the universe, it will happen" is as follows: "We have not a chance to shoot anything that we have not targeted".

The efficiency of the human factor in quantum experiments

In particle physics, there is the phenomenon of detectability when it happens. The phenomenon of being able to detect the event at the moment of happening is possible in nature and our daily life. Instant detection requires an observer. In the lottery example, which numbered ball will fall is determined as soon as it falls.

When we are at lakeshore we can see a line of moonlight on the water surface. This line is the projection on the water of the light that connects us and the moon. When we move, this line of light keeps pointing to us. If we line up people along the beach, each one will say that the line of light is pointing at them. In fact, in the status without an observer, the lake surface is completely covered by moonlight. However, an observer sees only one light line that comes to their position.

The event is simply like this. However, someone who neglect the big picture and, at the same time, cannot overcome this type of anthropocentric thinking can put forward different theses and present their visual/experimental proofs as in the event of moonlight; as if moonlight is establishing a relationship with the observer; someone may even claim that the moonlight can interact with him spiritually. Objectivity becomes difficult when the observer is a component of the event; observer-specific constraints get involved in analysis (in the theory of special relativity, some judgments have been asserted based on observer constraints).

A step-by-step misleading into the creation of materials with the power of thought

- 1- Particle physics is outside our normal tracking scale with/without tools.
- 2- Particle physics experiments do not have the option of monitoring the process like in movies.
- 3- Experiment results give indirect clues. The processing of these clues in the brain is limited to the "search", which is the main axis of the experimental setup. Other actors will only be able to reveal themselves if the appropriate experiment can be devised when they are searched for.
- 4- If the report the process and inferences of experiments and analyses are not elaborated, some interlocutors may consider it to be the "creation of material with the power of thought".
- 5- The observer may be a component of the event (moonlight). This kind of componentry can also be effective in the action character (interaction of actors of the same/equal scale, e.g., in the electron microscope, as the scanning electron punches the target particle). The interlocutor who does not have

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² Light kinematics requires ten essential factors, whereas the theory SR uses two postulates.

the necessary or sufficient objectivity tends to perceive the observer effect in an "actional" sense, based on careless scientific explanation.

- 6- However, in particle physics experiments, attempts are made to isolate such effects, as they distort the results of the experiment. In particle physics experiments, the observer effect is limited to detection in a format similar to that in the lunar light example. It is like the role of the subject in the generation of knowledge (knowledge consists of the interaction between a person and the phenomenon. If one of these components is absent, there is no information. Or, if the person is defective, the information may be also defective. Note that "knowledge" and "perception" are not concrete entities/matters). Since Berkeley, someone may bring up to give the role of the active actor of the event (without questioning the requirement of co-scale) to the observer, whose role is only that of a "receptor".
- 7- This concept of "creating matter with thought" has been hastily flagged as if there is a vast potential, exciting high mystery and, more importantly, scientific support. So, it is framed in minds and hung up in the head corner.

The need for an observer is formed/interpreted in quantum philosophy as follows:

- 1- An observer is needed for location determination.
- 2- Certainty is possible with the perception of an observer.
- 3- If there is no observer, the location cannot be determined.
- 4- If there is no observer, there is no location.
- 5- If there is no observer, there is no matter.
- 6- The mind of the observer creates matter.
- 7- The conscious creates matter.
- 8- The conscious plans the universe.

A person who has absolute objectivity cannot pass from item 3 to 4; however, those who pursue man's search for philosophical meaning may be willing to jump from item 1 to 8, and they can convince themselves in company with the success of rationalizing.

The reflection of the moonlight on the water surface is a line toward the observer. Wherever the observer goes along the shore, this line marks the observer for each position. Even when there is no observer, the reflections of moonlight cover the entire of lake surface.

Superficial analysis and confusing narration in special relativity

The major exemplary areas -where effective/advertent expression is neglected- are quantum/particle physics and special relativity theory [1].

The first approaches to light kinematics (e.g., special relativity theory) were similarly an incomplete analysis, whose inferences are exciting for mystic fanatics. When "light kinematics" is the subject of research, it should be analyzed in terms of at least ten essential factors and four dimensions [2]. Whereas the special theory of relativity had used only two postulates for the theoretical background of the Fitzgerald contraction. Analyses with missing factors will fail; the same mental performance will write the report in a careless/casual pattern. Comprehension and linguistic skills affect and support each other. Linguistic specialization and practice (coding nuances, concept formation, etc.) can help make analyses and syntheses more consistent.

The special relativity theory is attributed to Poincaré in the scientific records [3]. However, it had been registered to Einstein; Einstein had adopted it. When we examine it, we can perceive that Einstein was more excited from the theoretical conclusions and could not resist owning it. The essence of the theory is the contraction prophecy invented by Fitzgerald to revive the "ether" hypothesis because of the negative outcome of the MM experiment. As a matter of fact, although Einstein stated that it was based on the Maxwell propagation, he eventually propounded a theory that contradicted the beginning and the result of the subject, such as reviving/proving the Fitzgerald contraction (that is, the "ether" hypothesis). We can deduce that Einstein did not internalize the theory from this contradiction and made a superficial analysis driven by mystery hunting.

Undoubtedly, a scientific judgment must be sufficiently examined. When this is not done and literary/lingual problems accompany insufficient analysis, the scientist remains in an asymmetrical position in the age of information and technology. For example, when "light" coding is used for the test subject in special relativity theory expressions, the continuity of light is also included in mental processes and causes problems in the reader's questioning; if the reader proceeds without completing this step, they will not be able to internalize the rest of the text; they may prefer negligent reading and disable their cognizance by relying on the general acceptance reference. A light source is a local object, whereas light is a universal energy derivative. Analyzing their relation is already problematic according to the principle of unity of character. To properly maintain motion analysis, the analysis's actor must be distinguished like an "identified single photon" (e.g., numbered photon) [2]. On the other hand, the light source emits the photons at 41253 spherical degrees and in their fraction directions. If the direction of the photon is not specified with a perforated plate filter and ignored in the narrative, the next steps of reasoning will confuse both the analyst and the reader. This illusion can be clearly seen in the traveling of the photon on the diagonal path in the moving train from the Pythagorean relation, which is related to time dilation with the Lorentz transformations. It is not possible for a photon oriented with a filter to move diagonally. There is also the option to go like stairway steps; in which case, the photon's path cannot be got longer. Combining the photon's starting and final points -in the mind- is a rough first approach and is misleading [4]; that is an illusion/misperception. If uninterrupted photons are used, and when the directing filter is neglected, the analyst is convinced himself, but the readers are not able to activate their reasoning. According to Bertrand Russell's definition of atomic logic (taking into account the subtleties)³, this attitude remains very crude, superficial and deceptive.

The statement "The speed of light is the same for all observers" is a clear example of language abuse. Where is the observer and where is the light source?⁴ Will the reader determine this, or will they abandon the analysis because the scientist has not clarified it? Or will this statement become clear when the superficiality of the theory is internalized?

In the theory of special relativity, labeling the measured value of light's speed as the "speed away from the photon's source" or the speed at which the distance between the photon and its source is increased and applying this value in the definition of "exact relative" [5] has caused theory's some interesting inferences. A careless narration may also prevent this approach from being scrutinized by the reader. Because when the system of the measurement is examined, it is understood that a round-trip mirrored device can measure only the speed of light relative to light itself (in practice, according to the outermost space or Light coordinate system/LCS); this setup cannot measure the speed at which the photon moves away from its source or local environment; the speed for this requires one-way measurement [6].

The superficial considerations of the special theory of relativity can be summarized as follows:

⁴ A photon always arrives at the observer's eye with the speed of c, but the theory postulate is for moving away from its source.

³ https://www.youtube.com/watch?v=b4hTDDw2EMQ&t=233s

Superficial consideration 1: The habit of defining each measured velocity as the distancing velocity from the local place (in theory, it is treated as a dogma, that is, it is not mentioned at all; it is used as a kind of hidden postulate). Not talking at all can also be considered lingual/literary incompetence. According to the LCS method, the present measuring method (uninterrupted photons, mirrored double paths, etc.) can measure the relative velocity of light according to space/LCS, not the local place or the source).

Superficial consideration 2: To continue world-centered attitude. Energy and light are universal realities, so it is more plausible to examine the relationship between the local light source and the universal object (light) according to the outermost possible reference frame (space). In theory, assigning the source as a reference frame is not the result of a scientific decision process. *The LCS method uses the most external frame (space/LCS) as a co-reference frame. The speed of other actors (source/observer) v must be adapted as the universal value V_U according to this co-reference frame.*

Superficial consideration 3: Ignoring the freedom of movement of the light source in the moments after the photon-release moment. In the player–ball relationship, the player can move to their new position after throwing the ball⁵. After the photo flash is fired, the photon packet goes its way and so does the camera. According to the LCS method, the starting points of the photon and its source are marked on LCS. The photon moves away from this point with the value of speed "c"; its source moves away from the same point with the speed V_U .

Superficial consideration 4: The SR theory did not take into account the types of relativity and did not consider to specify the type of relativity for light. The theory uses the speed of light/photon in the sense of "exact relative" to the light source (directly, without examination/questioning). Whereas a car gains its speed by pushing the road, and this speed is defined as "exact relative" according to the road. On the other hand, when two cars travel on the same road, the relative speed of one car according to the other is in the definition of "hypothetical relative"; these cars do not need the other car to provide their speed. Light/the photon also does not need its source to acquire its speed; it travels in the vacuum of space by electromagnetic cycle. For this reason, the "exact relative" definition of the velocity of light with respect to its source" and its application is wrong. According to the LCS method, the relationship between light and its source conforms to the "hypothetical relativity" type, and the upper limit of this velocity of (free from observer's restrictions) is 2.c [7].

Superficial consideration 5: To assume that the inertial frame condition will also be valid for light. Whereas, the Galilean relativity principle and Newton's third principle are valid only the relationship between masses; they are invalid for the light. The LCS method already does not require the Galilean relativity principle (*). Also, general theory of relativity ignores the Galilean relativity principle [2].

Superficial consideration 6: In special relativity, a principle is that "the laws of physics are the same everywhere in the universe". This principle is true, but when relayed with lingual precision, well-directed phrase must be "The current mirrored measurement system gives the same c value for the speed of light everywhere in the universe". This careful statement does not include information about what the measured speed is (according to what?). It requires a scientific decision process. The theory directly labels and uses the measured velocity as "the velocity of distancing from the source" (without questioning what it is, such as a kind of hidden postulate or prejudice, as if everyone knows it). Thereby, SR imposes this principle to indicate that it moves away from each reference frame at the same speed. This prejudicial opinion of the theory still infects most people. This is the weakest point of the special

⁶ The photons emitted simultaneously from a star form a spherical surface that its radius increases with the speed c. The diameter of this sphere increases with the speed of 2c.

⁵ In space conditions, due to Newton's action-reaction law, the speed of the ball is exactly relative to the player. However, this law is valid only between objects, just like the Galilean principle of relativity. Using it for light is deceptive.

theory of relativity. Atomically analyzing and LCS method offer an alternative option: we can measure universal velocity of light (according to space/LCS); isotropic results support this hypothesis.

- (*) We have to remember the Galilean relativity principle expansion: If a pebble is left freely from the top of a ship's observation mast, where will it fall?:
- a) If the ship is traveling at a constant speed and in a straight line, the pebble falls at the bottom of the observation post; that is, if the ship moves uniformly, it can be considered as an inertial frame. The pebble has acquired a vectorial horizontal component (initial velocity) from the ship's velocity due to the interaction between the masses.
- b) If the ship is accelerating or turning, the pebble falls a little out from the mast, not to the bottom; because, the ship goes a different distance along the falling duration due to its acceleration.

As known, light/photon has no measurable mass; thus, light/photon does not acquire a horizontal vector component from ship's speed. The ship/source never become an inertial frame for light/photon even if they are in uniform motion.

In summary, the Galilean principle of relativity, which is one of the main postulates of the special theory of relativity and which is shown as evidence for treating the light source as an inertial frame, has also been taken into account - in theory - superficially. If it is examined with the concept of 'Atomically logic', it can be realized that the genuine version of this principle is valid only between objects⁷. This is very clear, and the fact that those interested in science do not notice this nuance is an effective indicator that they are content with just plain reading.

Careless narratives hide the error in Lorentz transformations

For an easy explanation of the special theory of relativity, the train and rails mental experiment is used. In the theory, the length and time dimensions/units are predicted to change for the train, which is a mobile system, by aiming the constancy of the speed of light with respect to both the rails and the train. Regarding this mental experiment, some publications have stated that the experimenter in the train is unaware of the movement of the train, and they accept the distance between the source and the photon as the distance traveled by the photon in t time. However, they have a problem in calculating the speed of light because they had measured the value c; whereas the external observer/physicist who has organized this setup knows that the same photon departs from the point on the rails/LCS and does not have any problem in speed measurement (their calculation gives the value c). Besides, he knows that he does not have to comply with the misperception of the person on the train [4]. Despite this, the SR theory persisted in finding a solution to the problem experienced by the person on the train.

Formulas are generated by induction in the presence of physical data, and physical parameters in formulas have units. These units require operational equivalence, whereas algebraic parameters in the equations are unitless. The Lorentz equations are mathematically derived by deduction, based on the speed of light being the same with respect to both the rails and the light source/train; therefore, they do not contain units [7 (p. 145)]. However, Lorentz and others attributed the units to the algebraical parameters. Please look and distinguish what happens: The result that it is supposed to solve is also nonsense, because in the end, Lorentz and SR say the following:

300,000 railskm/railsecond = 300,000 trainkm/trainsecond or

⁷ When we release a pebble freely on a train in uniform motion, the pebble drops as vertical path; because due to the mass interaction, the pebble has got the horizontal velocity component from train's speed. A photon does not get the initial velocity component from the train and points to a point behind the direction of travel. The Galilean principle of relativity cannot be used for an inertial frame in light kinematics. Indeed, the general theory of relativity ignores this principle [2].

These equations are an inference of the SR theory and Lorentz transformations. They prioritize that the number 300,000 remain the same and set up an equation in that direction. However, does the number 300,000 remain the same, making the traveling power of the light invariant in different units? When we consider the purchasing power of money, the number 300,000 when used with different units cannot ensure that the displacement ability/power of the light/photon remains the same. The theory and Lorentz's claim is like insisting that the purchasing power of 300,000 US dollars and, e.g., 300,000 bitcoins or 300,000 Japanese yens are the same.

The theory refutes itself. Keeping the number 300,000 the same does not mean keeping the speed of light constant. At this point, we come across the difficulty/carelessness of expression in new subjects in science. However, there is a solution for well-directed expression: If the unit changes are expressed as "referencekm/referencesecond" and "relativekm/relative second", the difference and distinction will be determined. Of course, we cannot expect him to solve a problem encountered for the first time immediately. However, if Lorentz had coded this distinction for the units; probably, he could be aware of his mistake. Lorentz, Poincaré and Einstein did not prioritize the power of light to travel or the ability of photons to move, as they thought that a dogma that "the speed of light is the same in all frames", they were looking for the answer of that question "Why is there always the number 300,000?" Their solution was to change the content/standard of the units. As a result, the invariance of the light's speed (which is the basic/initial postulate of the theory) is violated in terms of displacement power. Just like ignoring the meaning of the purchasing power of money, ignoring the power of light, that is, neglecting deep thinking, is also violating effective analysis and well expression.

Discussion

- 1- Science started with matter-based definitions and developed along this axis until recently. Matter-based science could not penetrate mental activities and paranormal phenomena, and for this reason, an area called "metaphysics" was opened, and the facts and events that could not be addressed by the matter paradigm were evaluated in this area. On the other hand, the belief that quantum physics and energy-oriented science cover everything and that all phenomena/events can be explained with energy is becoming widespread. Energy-based science will comprise metaphysics. Effective expression considers the minimal potential for misunderstanding, should now be included in the methodology protocols and does not negatively affect the scientific process.
- 2- The current opinion for the propagation of light is Maxwell's definition of the electromagnetic cycle. The speed of light decreases due to being absorbed by molecules in air, water or transparent objects and being emitted again (because the wave properties of the light and the electric/magnetic permeability of the mediums are different). However, when light is considered as a single and defined photon in a vacuum (space vacuum), its ability to travel—in the units we know and use—is the value of c. The essence of "the speed of light is constant" is the invariance of the power to displace. Additionally, there is no need to force thought for this meaning; the example of the purchasing power of money and our experience about the reality of inflation in our daily life helps comprehend this essence.
- 3- While the adoption rating of the special theory of relativity is at its peak, the questioning of its consistency is perceived as negative/strange, and a reaction attitude emerges; arguments / nuances / hints—accompanied by this reaction—can be ignored. However, it will be possible

⁸ Moreover, there is no change in the medium in which the light moves, such as permeability. The environment is the same environment; only the light source has motion.

for science to move to a new and more effective stage with such atomic analyses⁹ and examples (Karl Popper likens science to a net that we throw over natural events and whose meshes are getting smaller and smaller) [8]. The clues to the essence of natural phenomena will eventually be realized. Of course, the fantastic implication of "time travel" is very impressive and captivating with its potential for new horizons, too bright for our human or archetypal mysteries, almost a unique fiction.

4- The reporting adequacy for scientific inferences is important for theoretical physics, especially for quantum physics. For relativity theories, deep analysis is required besides lingual skill. Humanity has had marvelous scientific successes (e.g., quantum computer); this performance can define the subject of light kinematics, and it clears the way for cosmological analyses.

Conclusion

Science has increased our comfort; our lifespan has lengthened; the speed of scientific development is accelerating in the company of knowledge and methodology, that is, disciplined thinking. As humanity, we comprehended "the answer was the energy which rolls the dice ", and we stepped into energy-based science. The consciousness of managing mental references is also germinating and gaining significance. On the other hand, we can say that the development in science and technology is not sufficiently reflected in moral values and paradigms. When this bleak picture is accompanied by a lack of discipline in language, science may provide arguments and even ammunition for mysteries and occultism. While science provides advancement, it can also feed the stone-age mentality. There are cartoons such as fortune-telling with a computer, as well as notions such as "reading perception backward" and "creating matter with the power of thought", which threaten the perception of reality and exaggerate the psychological compensation mechanisms. The awareness of the need for minimizing the potential for misunderstanding in reporting these experimental findings and syntheses is as important as creating them on the axis of perfect objectivity.

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⁹ While the brain is thinking, "using templates", "completion", "shortcut preference", "random use of mental references" etc. remains under the control of conveniences. Such shallow thinking would not be functional in the field of science.