Comments on BPOM, UOM and Outline

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Outline

1. Sec. 2, P. 3, # 65, last lines: "it is an outward motion added to an inward motion."

   Comment: not always. It is inward, in the case of electro-positive elements.

2. #116: "The effect of this restriction (#57) is to bar three-dimensional rotational vibration."

   Comment: How does this follow from #57?

3. #127: "… each unit of rotational vibration combines with a unit of rotation."

   Comment: The electron has one natural unit of rotational displacement. Therefore it can take one unit of electric charge. But the atoms are doubled rotating systems. If Z is the net electric displacement of an atom, its atomic number, then the number of this displacement in natural units is 2Z. If each natural unit of rotation can take on one unit of electric charge, the atom can take 2Z number of charges on complete ionization and not merely Z.

Basic Properties of Matter

4. P. 57, lines 4 & 3 from bottom: "Radiation originates three-dimensionally in the time region, and makes contact one-dimensionally in the outside region. It is thus four-dimensional …"

   Comment: gap in the logic.

5. P. 59, lines 3,2 from bottom: "The 3/4 power of 7.20423×10^{12} is …"

   Comment: A dimensional error is involved: °K get altered to $°K^{3/4}$.

6. P. 60, line 19 from bottom: "1/3 $(3.598\times10^{9})^{1/3}$ degrees K = 510.8 °K."

   Comment: The dimensional balance is thrown to the winds.

7. P. 86, Table 22:

   Comment: How are the thermal factors arrived at?

8. P. 87, lines 11, 10 from bottom: "… for rubidium and cesium, there is no effective displacement in the electric dimension…"

   Comment: But Rb and Cs have 1 unit of effective displacement.

9. P. 113, 4 para, lines 1-2: "… there are two dimensions of rotation in space… in many of the elements of Division IV…"

   Comment: needs explanation.

10. P. 213, para 4, last 4 lines: "On one side of this dividing line the rotation appears CW to observation. The scalar direction of the magnetic charge on this side is therefore outward from a CW direction. A similar charge on the opposite side is a motion outward from a CCW direction."

Comment: But since the charge is a rotational vibration, in the next half-cycle it reverses.

11. P. 213, para 5, lines 1,2: "The unit of magnetic charge applies to only one of the two rotating systems of the atom. Each atom therefore acquired two charges…"

    Comment: What happens in the core of subatomic particles: Don't these manifest two poles (see line 3)?

12. P. 230, para 3, lines 5,6: "Since this remaining motion is scalar and two-dimensional, it is magnetic…"

    Comment: (i) But it is a *rotation* and not a rotational vibration. Moreover, it is a time displacement and not space displacement. How does it show up as magnetism? It is more like gravitational charge than magnetic charge.

    (ii) Should this not also show up as a mass loss?

13. P. 235, Fig. 25

    Comment: What does the Theory predict about the force between two currents perpendicular to each other?

14. P. 238, para 2, lines 3,4: "… a two-dimensional magnetic motion… applied in opposition to gravitation will leave one-dimensional residue, an electric current…"

    Comment: The scalar direction of this current is *inward*, what would be its results.

15. P. 241, para 2: "unlike the ferromagnetic charge, (The internal magnetic) charge on the basic rotation of the atom is subject to the electric rotation of the atom in the third scalar dimension…"

    Comment: In such case the charge does not display any bipolar effect.

16. P. 241, para 3: "The corresponding factor … is a square root of the product of 1 and 3×10^{10}…"

    Comment: What is the rationale?

17. P. 251, line 3,2 from bottom: "each magnetically charged atom exerts a force on its magnetic neighbors, tending to line up these… atoms with its own magnetic direction…"

    Comment: But it would be an antiparallel line-up, not a parallel!

18. P. 253, line 2: "… the electron rotation has the inward scalar direction…"

    Comment: since it is a space displacement, it has to be an outward scalar direction.

19. P. 253, lines 2-4: "… the electron rotation… the charge. the two motions take place in different scalar dimensions"

    Comment: But the charge (motion) modifies the rotation. As such they ought to be in the *same* scalar dimension. Also see P. 257, lines 20.19: "Addition of an oppositely directed unit of charge… reduces the net displacement to zero, and terminates the existence of the particle."

20. P. 262, 263: (about the gravitational charge)

    Comment: Since the gravitational charge is a two-dimensional rotational vibration like the magnetic charge, there should be a bipolar effect!

21. P. 271, lines 3,4: "$Th^{234} \rightarrow Pa^{234}$; 180-54 →182-52"

Comment: The vibrational mass for Z = 91 is 52.93 (see P. 268) Since 52 < 52.93 why should Pa^{234} need a beta decay 182-52 → 184-50?

22. P. 283, Table 36: "M 1-1-(1) proton"

    Comment: Why *M 1-1-(1) does not take precedence over +M 1-1-(1)? In the case of the neutron the gravitational charge is stated to take precedence, *M ½-½-(1), on the grounds that 2-dimensional motion is more probable.

The Universe of Motion

23. … the inner and the outer gravitational limits…

    Comment: One wonders whether similar limits exist for the translational effects in the cases of magnetic and electric charges too.

24. P. 234: The chapter on Pulsars contains many inconsistencies,

    Comment: It is not clear what the author wants to say about P and Ṗ.

    If P, the period is taken to be proportional to t^6 then dP/dt is proportional to t^5, that is, $P^{5/6}$, but not to P^5 as depicted. Even if $(P)_{obsd}$ is taken to be $(\dot{P})^{-1}_{cald}$, we have $\dot{P}_{obsd}$ proportional to $P^{-5/6}$.

    It is easy to see that the observed relation, Ṗ being proportional to P^{-5}, means that P is proportional to $t^{1/6}$ (and not to t^6 as assumed).

25. P. 235, line 7: …the expression $1/6\ (n/P)^5$ …

    Comment: The above expression does not give the set of radiating lines as shown in Fig. 24. Remembering that Fig. 24 is a log-log plot, the above expression can be seen rather to represent a set of *parallel* lines with slope = -5 on the diagram. The observed spread of the data on this diagram may be due not only to the different values of *n*, but also to the differences in the masses of the pulsars.

26. P. 297, para 2, lines 5-2: "… all … sources then Known."

    Comment: That was in 1967. What about in 1984, the year of publication of this Volume? Still no more than 5 conclusive cases ! ?

27. P. 341, bottom para: "… the radiation … travels back to us through time…"

    Comment: What does that mean?

28. P. 382, lines -14: "… addition of rotational motion in space to an atom of matter *decreases* the isotopic mass…"

    Comment: decreases or *increases*?

General

29. Electric charge is a unit of 1-dimensional rotational vibration.

    Comment: Two such units make up double ionization. But what would then be a charge with displacement 2?