

A psychophysical analogy between psychoactive tryptamines and radioactive isotopes

A prefatory statement

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GIVEN the significant wicked problems humanity is forced to face in the 21st century Anthropocene, systematic transdisciplinary scientific research on various naturally-occurring “consciousness expanding” psychoactive substances (specifically in the domain of psychology and neuroscience) is, per analogiam, at least as important as basic research on radioactive substances was for the progress of the physical sciences in the 20th century. Research on psychoactive tryptamines could potentially revolutionize our understanding of psychology comparable to the way research on radioactive isotopes revolutionized our understanding of physics. Today’s existential problems are primarily caused by a “mass-pathology of consciousness”. Therefore, “looking inside” (introspection/psychology) is currently much more important than “looking outside” (extrospection/physics). Contrary to wide spread believe, technological solution will not solve our problems which are clearly caused by psychological corruption (a fact which is not easily admitted due to unconscious psychological defense mechanism which prevent an unbiased perception of the real causes of our extremely pressing problems). A deeper understanding of consciousness might simultaneously help to address external problems as inside and outside might not be separable in the Cartesian dualistic sense (viz., the dichotomy between mind and matter, psyche and physis, subject and object, might not be as clear-cut as mainstream science *prima facie* assumes). Intrinsically motivated, authentic, and non-conformist thinking à la Marie Curie is of crucial importance in this context. Currently, we are utterly nescient about the exact relationship between mind and matter (i.e., psyche and physis; cf. the hitherto unresolved explanatory gap). Ergo, intellectual/epistemological humility is a true scientific virtue which forms the basis of genuine curiosity, and hence creativity, innovation, evolution, and the urgently needed radical Kuhnian paradigm-change. Specifically the potential to induce transformative and enduring states of unity consciousness (s.c., nonduality/Advaita) is of great pertinence in the prevailing capitalistic neoliberal/social-Darwinian climate which indoctrinates immoral/inhuman hyper-competition, careerism, ego-centrism, and psychopathic narcissism (this is then called “success”). Utilized in the right way, minute quantities of a chemically well-defined small class of psychoactive tryptamines (i.e., structural analogues of psilocybin/serotonin) can change human consciousness

in profound ways and facilitate deep ontological insights into the interconnectedness of humanity (beyond economic competition) and all of nature (biophilia versus nécrophilia; cf. hologenome theory of evolution). Given that converging evidence from a variety of independent sources indicates that humanity is currently destroying the ecosystem at an exponential rate, a fundamental shift in the regnant cognitive *modus operandi* is of pivotal importance for the survival of the species *homo sapiens* (currently more accurately classified as *homo consumens*) on this planet which has been termed spaceship earth. Contrary to widespread naiveté, the logical interpretation of this proposal does not rest on the premise that every individual has to partake in this mind-changing endeavor. From a complex systems theory point of view, a phase-shift in the collective unconscious of the species (à la C.G. Jung) might be induced if a proportionally rather small ‘critical mass’ of participants is reached (cf. ‘snowball-effect’ in social psychology, i.e., in communication networks). We simply do not know enough about consciousness (and *de facto* physical matter; cf. recent empirical findings in experimental quantum entanglement research, e.g., violations of Bell inequalities; hypothetical dark matter & dark energy, extra dimension/M-theory, etc. pp.) to precluded the possibility of effecting the collective unconscious in hitherto unknown ways *prima facie* (a close-minded and dogmatic attitude towards the possibilities of science which is unfortunately very dominant in indoctrinated mainstream academic circles). For instance, we find similar models in developmental biology where a small minority of so called ‘imaginal cells’ in the developing chrysalis transform the whole organism beyond recognition into a beautiful colorful butterfly which can fly! Who would have predicted this unfoldment of inherent (dormant) potential *a priori*? Open-mindedness is a *condicio sine qua non* for creativity, cognitive innovation and, ergo, scientific progress and the theoretically infinite unfoldment of human potential.

Pertinent references

Carhart-Harris, R. L., & Nutt, D. J. (2017). Serotonin and brain function: A tale of two receptors. *Journal of Psychopharmacology*. <https://doi.org/10.1177/0269881117725915>

Lewis, S. L., & Maslin, M. A. (2015). Defining the Anthropocene. *Nature*. <https://doi.org/10.1038/nature14258>

Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwig, C. (2015). The trajectory of the anthropocene: The great acceleration. *Anthropocene Review*. <https://doi.org/10.1177/2053019614564785>

Friedrich, C., & Remane, H. (2011). Marie Curie: Recipient of the 1911 Nobel Prize in Chemistry and Discoverer of the Chemical Elements Polonium and Radium. *Angewandte Chemie International Edition*, 50(21), 4752–4758. <https://doi.org/10.1002/anie.201008063>

Cozzi, N. V., Gopalakrishnan, A., Anderson, L. L., Feih, J. T., Shulgin, A. T., Daley, P. F., & Ruoho, A. E. (2009). Dimethyltryptamine and other hallucinogenic tryptamines exhibit substrate behavior at the serotonin uptake transporter and the vesicle monoamine transporter. *Journal of Neural Transmission*, 116(12), 1591–1599. <https://doi.org/10.1007/s00702-009-0308-8>

Josipovic, Z. (2010). Duality and nonduality in meditation research. *Consciousness and Cognition*, 19(4), 1119–1121. <https://doi.org/10.1016/j.concog.2010.03.016>

Harvey, D. (2007). Neoliberalism as Creative Destruction. *The ANNALS of the American Academy of Political and Social Science*, 610(1), 21–44. <https://doi.org/10.1177/0002716206296780>

Edwards, M. A., & Roy, S. (2017). Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hypercompetition. *Environmental Engineering Science*, 34(1), 51–61. <https://doi.org/10.1089/ees.2016.0223>

Blair, S. S. (2009). Imaginal Discs. In *Encyclopedia of Insects* (pp. 489–492). Elsevier. <https://doi.org/10.1016/B978-0-12-374144-8.00139-9>

Martín, F. A., Pérez-Garijo, A., & Morata, G. (2009). Apoptosis in *Drosophila*: Compensatory proliferation and undead cells. *International Journal of Developmental Biology*. <https://doi.org/10.1387/ijdb.072447fm>

Lyons, T., & Carhart-Harris, R. L. (2018). Increased nature relatedness and decreased authoritarian political views after psilocybin for treatment-resistant depression. *Journal of Psychopharmacology*, 32(7), 811–819. <https://doi.org/10.1177/0269881117748902>