Snapshot of a quantized body: Learning from the Daoist body

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Abstract
In Snapshots from Home, Karin Fierke calls for radically repositioning the apparatus through which we interpret the world, inviting us to bridge the seemingly insurmountable chasm between quantum science and ancient Asian thought and practice to think about a more Global International Relations. Specifically, we are daringly tasked to consider how the ‘weird’ mathematics of quantum physics and science is paralleled by deeply relational ancient non-Western systems of knowledge. Fierke’s starting point is Bohr’s wholistic quantum physics but her main interest and focus is a deep reflection on its broad similarities with Buddhism, Hinduism and Daoism. Considering the parallels Fierke draws between the relational frames of quantum science and Daoism in the context of a raving pandemic, I feel challenged to bring the body into the conversation. How does Fierke’s apparatus prompt us to think and act ethically in relation to the emerging postgenomic body arising from recent advances in microbiology including quantum microbiology? It is a permeable body that is deeply quantum entangled in and with the natural and social-cultural environment and/or context. What can we learn from the relational strategies and actions attached to the Daoist body to thinking about the contemporary quantized bodies and the governance of their health?

Keywords
Body, COVID-19, Daoism, Global Health, Postgenomics, Quantum Social Science

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Theorizing the emerging quantized body

The biological body, as traditionally understood by biomedicine and public health, is fixed, innate and separate from the social and natural world. This has largely prevented biomedicine from accounting for the social-political and environmental ramifications of health. More recently, the emerging postgenomic field of epigenetics is revolutionizing the (micro)biological sciences in revealing the way gene expression is altered through harmful environments, malnutrition and stress relating to poverty and discrimination, influencing the development of individuals across generations (Lock and Nguyen, 2018: 3). Similarly, microbiomics, the study of the microbiome comprised of all microorganisms that exist in and on living beings, is showing the health of the humans and other species is dependent on our relationships with microbes including viruses. Challenging the perspective of the biological body as fixed and impermeable, these microbiological advances are creating an image of the body as permeable to its environment. Thus, the postgenomic body is indeterminate and malleable in it is becoming with other species and environments.

A new field is emerging slowly in the biological sciences that is bringing together biology, biochemistry and quantum physics. While quantum physics has revolutionized physics, organic/biological processes are only now beginning to be understood as involving also quantum principles. In fact, renowned physicist Erwin Schrödinger argued this already in his lectures on ‘What is life’ in Schrödinger/Penrose (2012), suggesting, quantum processes are implicated in the atomic and subatomic constitution of matter in microbial metabolism and structures as well as the organic, genetic information code of DNA and RNA. In foretelling epigenetics, quantum physicist Heisenberg also suggested that quantum phenomena were likely implicated in genetics, impacting evolutionary history:

Genetic investigations into the frequency of mutations, for instance, seem to indicate that under certain conditions an event on an atomic level, such as the release of a single chemical link in a chromosome of a cell nucleus, can cause changes in the whole future development of an organism. In such cases the statistical laws of quantum theory assume a direct practical importance for the behavior of a living being (as quoted in Heisenberg, 1979: 91; Grove, 2020: 4).

Quantum (micro)biology is still in its infancy and remains controversial as it is widely held that ‘the warm, wet, and noisy environment’ in living organisms makes quantum effects impossible. Nonetheless, biomedical scientists are already theorizing the potential of exploiting quantum properties to revolutionize medicine. We know already that nature utilizes quantum principles to increase cell functions. Quantum properties are also believed to play a role in central processes in living systems including stabilizing DNA. With quantum microbiology, then, a new figure of the (biomedical) body is beginning to emerge again that is adapted to both classical and quantum physical processes giving rise to new and as yet undefined (health) interventions. This quantized body is deeply permeable to its lively surrounding, bringing the assertion of the environmentalization of the body (Guthman and Mansfield, 2013) to a new level.
Is the quantum body taking shape a figure similar to the epigenetic body, that is, “a plasticity of pure becoming, a destabilization of the intentional agent via the creative force of biological matter itself” (Meloni, 2018: 26)? Fierke’s reflections on a radically uncertain world in which patterns of impermanence, interrelation and emergence pervade lead to the question of the kind of strategy and action, that is, the (global) politics, this emergent relational body invites.

A variety of non-Western epistemologies of the body, including Daoism, understand relations among human/non-human bodies in wholistic and monistic terms. In these knowledge traditions, everything is conceived either as a single unit comprising the smallest entity – the atom, cell, organ, organism, plant, mountain – to the largest, the universe; or as (balanced) complementary dualities. The monistic conception of the body and the health of this body in non-Western epistemologies appeals to a different kind of regulation than the Cartesian understanding of the body. It is also thoroughly non-modern in the sense that it does not speak to the modernistic truths of the bounded body and genetic core known to the genomic body (Voelkner, 2019, 2022). Thus, in reflecting on Daoism, I ‘leap with the quantum to another set of spooky actants: spirits, gods, and other subtle bodies’ (Keller and Rubenstein, 2017: 5) to make sense of the quantized body emerging in the deeply relational world.

The Daoist body

Daoism is an ancient system of knowledge that arose in China between 1122 and 256 BCE during the gradual dissolution of the Zhou empire when also an intellectual culture sprouted around Confucius, Mencius and others concerned with one central question: where is the Way? According to the key script Scripture of Way and Power, the Way or the Dao 道 was to be found ‘in the very vitality of nature, in the wholly natural and wholly spontaneous transformation and flourishing of the world’ (Miller, 2003) arising from the dynamically oscillating forces of masculine (yin) and feminine (yang) in their complementarity. Human beings are ‘inextricably woven into the fabric of our natural environment’ (Miller, 2001) that Miller suggests can be understood as a matrix or economy of cosmic power and creativity (Fierke, 2022: 124). Thus, the Daoist world is a relational world of creative and transformative mutuality (Ling, 2013).

(Wo)man could influence the vitality of this world by acting morally on the individual body through self-cultivation as well as on the surrounding environment by forging ethical relationships, political organization and so on to balance the interdependent world comprising bodynature. The Daoist body embedded in this dynamic and creative cosmic whole expresses the complementarity in its health for example, moving between the yin, the hot, and yang, the cold, forces (Fierke, 2022: 116). That is, the health of the individual body depends on a healthy balance of yin and yang in the surrounding built and natural environment. Each organ, in turn, is dependent also on its relation to other organs. As Scheper-Hughes and Lock (1987) have noted, ‘Nothing can change without changing the whole’ (p. 12). Thus, in contrast to the Cartesian understanding of the body as standing in opposition to the mind and nature, Daoism emphasizes inclusiveness and on the act of balancing between complementary extremes.
As the Daoist body is shaped by their environment, that is, the specific landscape which surrounds it, when the environment changes, inevitably so too do (wo)man and all other living beings embedded therein change. This is particularly urgent to reflect upon considering pandemics and global environmental change. Hence the importance of Fierke’s work. Daoists believe the environment can also be influenced by a Daoist knowing how to steer and balance the forces of nature by regulating and nurturing both their own particular body and conducting themselves, as inhabitants of the world, morally to reinstate harmony of nature (Schipper, 1978: 357).

Riding the way

Epistemologies, be they religious or secular, influence how people interpret and act upon their experience of the world. What can be learned from Daoism about the body and about regulating health in light of the quantized body’s embodiment of the environment?

In his lectures on ‘What is life’, quantum physicists Schrödinger also explored Eastern mysticism as exemplifying quantum theory (Schrödinger/Penrose, 2012). While realist physicists consider quantum physics and Eastern mysticisms dissociated, others continue to discuss the parallelism between quantum and Eastern ethics. In Snapshots from Home, Fierke makes this ‘quantum’ leap to explore the possibilities in making sense of a relational and complementary reality, of our dependence on other beings in our being. Fierke (2017, 2019, 2022) has extensively explored the way Buddhist, Hinduist and Daoist thought have helped to make sense of the social implications of quantum thought.

Introducing a wholistic conception of the body in the regulation of health does not simply mean casting aside a biomedical perspective on health. This would be futile in disavowing the many achievements gained for the health of many through biomedical approaches. Rather, it suggests shifting more resolutely to a figure of the body that is deeply immersed in the dynamism of its surrounding in the way we think about disease and health. The quantized body unfolding in the wake of quantum microbiology is indeterministic, emergent and instable in its agency. Similar to Fierke, I am inclined to think this emerging body can be better represented by an alter-modernistic system of thought. Thinking through non-Western imaginaries of the body such as the Daoist conception allows a rearticulation of the body as thoroughly dependent of a healthy environment. Karin Fierke and Lily Ling’s theorization of the Dao of global politics offers a framework to think dialogically about the kind of politics necessary to govern health. It is a call to shift away from the hegemonic and violent underside of global public health to a more representative approach that may more resolutely address the deep inequities and inequalities persisting therein. In the end, Fierke’s strategy pays respect to the diversity and differences in the world and allows them to flourish.

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References


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