Subatomic particles

Joint efficiency
Joint life
I am a subatomic particle

Looking at models of atoms and molecules in the physics classroom is one of the few things that left lasting impressions on me from school. These smallest instances that makes up the world, could they answer the questions I was always asking myself; why are things they way they are? why not otherwise?

In 2006 I was experimenting with brainwave manipulation for some experimental videos. I was listening to sounds that would gradually tempt my brain to change frequency. I studied the Kuramoto model that described how oscillators (things that vibrate, practically everything) tend to influence each other and spontaneously synchronize through self-organization. *I read about subatomic particles and waweforms as I was trying to get my head around the relation between thought and matter. How are my thoughts affected by my surrounding and how can I change things in a direction I feel they should be?*

In 2010 I read the book time travelers by physicist Ronald Mallett. Thanks to an invitation Barry Rosenberg at Contemporary Art Galleries, Connecticut, I was able to spend a month on the campus of university of connecticut, working with Ron towards an exhibition.
in his lab Ron explained his theory to me: *That circulating light could, in theory, create a space-time loop connecting the future with the past. "a string of neutron subatomic particles, could be arranged so that some point "up" while others point "down", representing zeroes and ones. These zeroes and ones could then encode a binary message which could be sent back into the past from the future. This technological manipulation of the most fundamental, deep scale aspects of matter was both scary, as if messing with a fundamental order risked getting things …….out of order. But also intriguing, since most things were already very much out of order, what could make it worse?*
The idea that futures would be able to access the past had a major inpact on me in thinking about intergenerational justice. It expanded my perspective on resistance to colonial hoarding, also in temporal terms. And deepened my intrest and understanding of the organisation of things down at the deepest scale.

Visiting documenta in kassel 2012 and looking at art through the lens of Barads catalogue text "What Is the Measure of Nothingness: Infinity, Virtuality, Justice", furthered this understanding to fall into place. It stated "an electron is not just "itself" but in-cludes a "cloud" of an indeterminate number of virtual particles." I read this indetermination as an openness to become with, to be influenced by whatever we meet next on our path. This queer nature of existence, the instability of self and reality was reassuring. other worlds are possible.

By 2016 I had stopped flying but I read ON DIFFERENCE WITHOUT SEPARABILITY

By Denise Ferreira da Silva in the catalogue for the Bienal de São Paulo.
The idea of nonlocality was disturbing. The notion of nearness and contact felt so central to me. Does thinking through particle physics reproduce separability, determinacy and sequentiality?

Gap?
Materiality materialisms – conference . inventera efter fler exempel.

During 2024 I was developing a work for the Karachi biennale (SEE). I was looking at different occilating tendencies, from stimming behaviours to the rythms of plants and insects. Again I gravitated towards self-organizating tendencies in particles. I learned that when different entities come together with their different frequencies the rhythms will start to affect each other. For reasons of joint efficiency, they may synch up and vibrate together through spontaneous self-organisation. In his ted talk Mathematician Steven Strogatz explains how Spontaneous synchronization rely on three simple rules. (And one exception).
First, all the individuals are only aware of their nearest neighbours.
Second, all the individuals have a tendency to line up.
third, they're all attracted to each other, but they try to keep a small distance apart.
And when you build those three rules in, automatically you start to see swarms that look very much like fish schools or bird flocks. Now, fish like to stay close together, about a body length apart. Birds try to stay about three or four body lengths apart. But except for that difference, the rules are the same for both."
This fundamental organizing takes place on all scales. Even on atomic level these three rules structures how matter organizes and shifts. This also applies to human individuals and groups. Humans can tune with their surroundings, for example through stimming and sensorimotor exchange. In Animation….. I explain how this may work and how it relates to my artistic practice.

These three rules are constantly structuring our existence. Except for one exception - when a predator attacks – then the rule "get out of the way" is activated and overrides the three first rules.
--→ continue reading about being under attack

This also applies to human individuals and groups.
Humans can tune with their surroundings, for example through sensorimotor exchange.(see text) But when a human comes under attack and perceive fear this sensuous maneuvering is overridden, and an automatic preprogrammed survival response is activated. The fight or flight responses are the most well-known, but there are also others, such as freeze, fawn and flop. The fawn response is a automativ response to please the perptrator, disguising the fact

that there is even an agression going on. (Autistic shutdown (Ombre)) The fact that such reactions are automatic and subconscious makes it extremely complex to decipher power structures between humans.

Its also no wonder that we cant organize for mutual efficiency in ways that sustain the larger bodies we as individuals are part of.

This makes me wonder; in the midst of The sixth extinction where most life is under constant attack, Where omnicide is an ongoing reality, how will life be able to self-organise in reciprocal relationships? - Dying in peace. Voluntary shrinking, Att motstå lusten, impulsen att växa och överleva. Hospicing modernity.

Taken that the human brain is made up from subatomic particles it is perhaps not that strange that humans has a similar mechanisms.

NEXT TEXTs:

- Priority one - Stop attacks! Every action should dismantle hostility before adding anything new to the equation.

Continue reading at for example:
*Under attack - When we are under attack we can not organise.
Attacks disquised as convenience and service. AI takeover meme.
*School – as hostile environment - when we are under attack we can not learn (school refusal, children have inherent drive to learn the things they need to know. The schoolsituation prevents them from learning.
*PDA Refusal – they refuse to go there.
* Disabled Self-organisation - new public management
*marigold resonance Instagram documentation.
* Animation, sustainability & neurodivergence -lands in reflections on animation as a way to tune to surroundings and materials, through iterations of sensory input ant motor output.
*storyworld nre bible . to explore the storyworld that emerged from Mallets time

Who knows if a child is really consenting in such situation? Can even the child themselves know? If the child don't know that there is such a thing as fawning, they will see themselves agreeing and consenting. The underlying sense that something is not quite right becomes difficult to understand. PDA
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Organising under fashism

Gottsunda scener – vi är splittrade

My motivation to learning 3D modelling was the desire to scale up and down, from an outside perspective into the insides the smallest forms.

This can give a meditative presence and a focus, oscillating iteration with an attention to what possibilities lies in each moment/frame. A being with the now. Each moment becomes open to a multitude of possibilities that often has been inaccessible in any preproduction or script writing. They are ideas that comes in a dialogue with the material and the conditions of that specific moment. Frame-by-frame animation enable a kind of calibration of frequency, similar to how stims are explained as a sensorimotor cognition process.

This approach to animation connects with broader theories of resonance and consciousness. Quantum physics, as interpreted by theorists like Karen Barad,[i] suggests that all things in our universe are constantly in motion, oscillating and vibrating at a multitude of frequencies. When different entities come together with their different frequencies the rhythms will start to affect each other. For reasons of joint efficiency, they may synch up and vibrate together through spontaneous self-organisation. Psychologist Jonathan Schooler's "resonance theory of consciousness" suggests that resonance (another word for synchronized vibrations) is at the core of not only human consciousness but also animal consciousness and of physical reality more generally.[ii] This supports premodern beliefs of Panpsychism: that consciousness exists in all matter. And it seems as if this specific kind of vibrational consciousness is also shared by all matter.[iii] A "transconcious" acknowledgement of the transcorporeal?

There is an irony to this. The fact that if there is any universal property to being human, it is precisely the opposite of the universalism proclaimed by modernity. It is a property that we share with other beings, and rather than as isolated, individual selves, this essence emerges through rhythmic, relational becoming with the world. It is through this interconnected process, that we come closer to the reality of this world.

26 januari

- 26 januari

The phenomenon you're describing—where entities with different frequencies influence each other and spontaneously synchronize through self-organization—is a well-studied concept in physics, particularly in the study of coupled oscillators. A foundational model that addresses this behavior is the ***Kuramoto model****, which explores how synchronization emerges in systems of oscillators with varying natural frequencies. In this model, when the coupling strength between oscillators exceeds a certain threshold, they begin to synchronize, leading to a collective rhythm.*
Wikipedia

For a comprehensive academic discussion on this topic, you might refer to the paper titled "Spontaneous synchronization and nonequilibrium statistical mechanics of coupled phase oscillators" by Gherardini, Gupta, and Ruffo. This work delves into the mechanisms of spontaneous synchronization in populations of oscillating units with diverse natural frequencies and weak interactions. The authors provide an analytical framework to study this phenomenon, highlighting the rich and complex behaviors that emerge in such systems.

arxiv.org

All about the vibrationshttps://earthsky.org/human-world/consciousness-what-is-theory-vibration/

All things in our universe are constantly in motion, vibrating. Even objects that appear to be stationary are in fact vibrating, oscillating, resonating, at various frequencies. Resonance is a type of motion, characterized by oscillation between two states. And ultimately all matter is just vibrations of various underlying fields. As such, at every scale, all of nature vibrates. Something interesting happens when different vibrating things come together: They will often start, after a little while, to vibrate together at the same frequency. They "sync up," sometimes in ways that can seem mysterious. This is described as the phenomenon of spontaneous self-organization.....Examining resonance leads to potentially deep insights about the nature of consciousness and about the universe more generally……Gamma waves are associated with large-scale coordinated activities like perception, meditation or focused consciousness; beta with maximum brain activity or arousal; and theta with relaxation or daydreaming. These three wave types work together to produce, or at least facilitate, various types of human consciousness,…Fries calls his concept *communication through coherence*. For him, it's all about neuronal synchronization. Synchronization, in terms of shared electrical oscillation rates, allows for smooth communication between neurons and groups of neurons. Without this kind of synchronized coherence, inputs arrive at random phases of the neuron excitability cycle and are ineffective, or at least much less effective, in communication….This sounds strange at first blush, but ***panpsychism*** – the view that all matter has some associated consciousness – is an increasingly accepted position with respect to the nature of consciousness…..Biological organisms can quickly exchange information through various biophysical pathways, both electrical and electrochemical. Non-biological structures can only exchange information internally using heat/thermal pathways – much slower and far less rich in information in comparison. Living things leverage their speedier information flows into larger-scale consciousness than what would occur in similar-size things like boulders or piles of sand, for example. There's much greater internal connection and thus far more "going on" in biological structures than in a boulder or a pile of sand. (**The now, connect from deeper levels of organisation**) ……..The central thesis of our approach is this: the particular linkages that allow for large-scale consciousness – like those humans and other mammals enjoy – result from a **shared resonance** among many smaller constituents. The speed of the resonant waves that are present is the limiting factor that determines the size of each conscious entity in each moment...What about larger inter-organism resonance like the cloud of fireflies with their little lights flashing in sync? Researchers think their bioluminescent resonance arises due to internal biological oscillators that automatically result in each firefly syncing up with its neighbors…..It is all about

vibrations, but it's also about the type of vibrations and, most importantly, about shared vibrations.

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[i] Karen Barad,

[ii] Hunt T, Schooler JW. The easy part of the hard problem: a resonance theory of consciousness. *Front Hum Neurosci*. 2019;13:378. doi:10.3389/fnhum.2019.00378.

[iii] Faggin F. *The primordial quantum language*: Essentia Foundation; 2021 May 23. Available from: https://www.essentiafoundation.org/the-primordial-quantum-language/reading/