

Footnote Article

Relativity & The Complex-Dynamical Nature of Society

Society has no fixed structure. It is a complex dynamical fluid. It appears differently to each individual according to his unique position within it. It has a different appearance, a different character and exhibits a different behaviour towards each of its members. It is a relativistic universe. [[PDF](#)]

Universal Rules

I am a [conscious being](#). I perceive therefore I exist. I perceive myself. I also perceive people and things that are not me. They affect me. I affect them. I am hereby led to believe that I exist together with them inside a single communicative domain known as the universe.

Reason tells me that if I, and all other people and things, existed outside the universe, then there would be nothing to connect us. We would each be unaware of the others' existences. All would be darkness. All would be silence. Communication could not take place. Existence itself would be a paradox. On the other hand, if I, and all other people and things, were so totally connected that every action by everybody affected everybody else in all ways at all times, then we would all be a single indivisible entity eternally bathed in a cacophony of bright featureless white noise. Individuality could not exist. Communication could not take place. Existence would again be a paradox.

However, [the universe that I perceive](#) is one that supports both individuality and communication. It lets each be himself within a community of others. It accomplishes this by imposing a relationship between cause and effect, which is in all places and at all times the same. We perceive this complex relationship as a set of rules we call the Laws of Physics, which we express and manipulate in a language called Mathematics. The constancy of these rules throughout all space and time make the effect of every cause predictable and reproducible. It is this that makes communication possible.

Relativistic Views

The Laws of Physics dictate that no two things can occupy the same position in time and space. They force everybody to be separate. Each is thereby forced to perceive the universe from a [different point of view](#). While the rules, that govern relationships between cause and effect, are in every place and at every time the same, the universe itself appears differently at every time and from every place within it. The universe in which we all live therefore looks different to each of us. Its appearance to any one of us depends on who is looking. Put formally, its appearance varies with the position and nature of the observer.

Each of our views of the universe is point-centric. Each one of us sees the universe as extending from the point where he is, up to and as far as his personal *event horizon*. This is his exclusive view and experience of existence. It follows that there must be as many views of the universe as there are observers to observe it, and that each view must be unique to its own observer. If one defines a universe - like any system - by its appearance and behaviour, then each observer's view of the universe is a universe in its own right. It is as if there were 6 billion interconnected parallel universes - one for each of us. However, these universes are not as parallel as one might suppose.

At a physical level, once the *nature* of an observer has been fixed, the appearance of the universe varies only with the observer's location. Suppose I am an electron. The universe looks different according to where I am within it. Nevertheless, it behaves the same way towards me as it does towards every other electron. In other words, the universe always interacts with an electron according to the same protocol. The universe is no respecter of electrons. Of course, the universe behaves quite differently towards a neutron. But then a neutron is a different species. It has different physical properties. Applying the same rules therefore invokes a different behaviour.

But I am not an electron. I am a human life-form. Again, the universe looks different according to where I am within it. Nevertheless, it still behaves essentially the same way towards me as it does towards every other human life-form. In other words, the universe always interacts with a human life-form according to the same protocol. The universe is no respecter of persons. Of course, the universe behaves quite differently towards a cow. But then a cow is a different species. It has different physical and biological properties. Applying the same rules therefore invokes a different behaviour.

A Partial Analogy

Having worked with computers all my life, I frequently think of human society as an application program running under the operating system we call the physical universe. Like the application suite Open Office running under Unix. No analogy is perfect, but I think this one is useful as far as it goes. Unix provides Open Office with the resources it needs in order to function. Likewise, the physical universe provides human society with all the resources it needs in order to function.

Open Office is free to operate according to the business-oriented rules laid down by its programmers. The Unix operating system knows nothing of these rules. Yet Open Office may only apply its rules within the constraints of the system-oriented rules that govern the environment with which Unix provides it. Society is likewise free to operate according to the socio-economic rules enacted by its politicians. The physical universe (specifically the Earth's crust and biosphere) knows nothing of these man-made rules. Nevertheless, society can only apply its rules within the constraints of the Laws of Physics that govern the environment with which the physical universe provides it.

Again, we may view the rules of society as a higher level protocol like TCP running above (or more correctly, being carried within) a lower level protocol like IP where IP represents the rules of the physical universe.

But here the analogy ends. Computers, operating systems and application programs all operate according to natural law - the Laws of Physics. As biological machines, so too do human beings. However, the [conscious mind](#) is able to formulate and choose its own rules. It possesses some degree of self-determination. But the rules that our human politicians formulate and impose upon society are not as perfect as the Laws of Physics, and are certainly not so benign.

Unequal Before The Law

As a result, unlike the physical universe, the social universe does not behave the same way towards everyone. Society is a respecter of persons. But all human beings are of the same species. I would therefore suppose that society ought to treat everybody the same. It should behave towards each according to the same set of rules. Every person should interact with every other person according to the same protocol.

However, society does not behave towards the Queen of England in the same way it behaves towards the Tramp of Borough High Street. A master does not behave the same way towards his slaves as he does towards his peers. Yet they are all the same genus. Each has the same bipedal body of roughly the same height and weight, and sporting basically the same 200,000,000,000 neuron supercomputer inside its skull, and with similar aspirations to health, wealth and the pursuit of happiness.

The protocol by which the universe interacts with an electron is fixed. It is etched into the fabric of space-time. The protocol by which man interacts with man is not fixed. It is underpinned by certain natural primitives like self-preservation. Nevertheless, it is, in essence, determined not by nature but by the collective free will of those who influence and dominate society. Unlike in the case of the physical universe, the rules by which the social universe is governed are fluid. This is the fundamental difference between them.

Both the natural universe and human society are complex dynamical systems. Both of them exhibit chaotic behaviour. But the behaviour of the physical universe is governed by invariant and inviolable rules. Each of its elements, composites and systems reacts with its neighbours according to benign fixed protocols. One could say that the laws of physics are "written in their hearts". This ensures that the behaviour of the physical universe will always gravitate towards a mathematical attractor that is both stable and benign. Consequently the physical universe is sustainably self-governing.

The behaviour of the social universe, on the other hand, is governed by laws that are both variable and violable. Parliament alters them any time a consensus of its members, in their all too limited human wisdom, see fit to do so. And all too many of those, whose behaviour these laws supposedly govern, violate them any time they feel like it. Society can never therefore gravitate towards a stable mathematical attractor. Because the laws are continually changing, the attractor itself is unstable. It is continually weaving, folding and convoluting. Furthermore, whenever laws are violated, the attractor they evoke no longer attracts. Society itself is therefore destructively unstable.

A human legislature is dominated by lawyers. These are necessarily drawn from a very cloistered sector of society. They exclude the artist, the scientist, the engineer. They exclude the poor and the needy. They exclude the majority. They exclude every other minority. They exclude the average. In addition to its inherent fallibility, their knowledge of human circumstance is therefore dangerously limited. Consequently, all laws that they enact can be tested only within their dangerously narrow domain of perception. It is impossible for them to guarantee that a law will be benign in all places at all times and in all circumstances. In their supposed quest to create an equitable system of law to govern human society they are therefore inexorably doomed to fail.

The upshot is that legislation tends to favour legislators and those who are perceived to fall within their ideological domain. The ideology that is pursued by legislators is that which gives advantage to those who influence and support them. Those who influence and support the legislators most are those who possess and control the resources that enable them to project and enforce their influence. These are those who possess natural resources and have the capital to buy the necessary human expertise. They are the rich. The law thus ends up being a mechanism for protecting the interests and possessions of the rich from theft, acquisition or destruction by the poor. In other words, within the context of a formalized centrally governed State:

*The [purpose of the law](#) is to facilitate and enforce
the ordered and peaceful containment and exploitation
of the poor by the rich, the weak by the strong,
the honest by the devious: the many by the few.*

Nature Kicks Back

The protocols that govern the interactions between the elements of natural complex dynamical systems support a function called [negative feed-back](#). It is this that ensures that the behaviour of a system gravitates towards a stable benign attractor. If the rich were to have their way then the protocols that regulate economics would provide no form of negative feed-back. Society would contain no means for re-distributing wealth.

Under the protocol of free market capitalism, all wealth would be relentlessly drawn into fewer and fewer hands, which would eventually congeal into a single private monopoly. This would doubtless then fragment under its own mass. Nevertheless, all wealth would remain tightly bound into a small fluid group of private interests. Society would become the science fiction nightmare of a *fortress rich* who are insulated and protected from the excluded masses outside fighting for their wretched existences amid grinding poverty.

However, there is a limit to how far this can go. This is because there is an ultimate negative feed-back mechanism built into the natural primitives that underpin all social protocols. It is the law of self-preservation, which is built into the psyche of every human life-form. It protects both the individual and his progeny - his genome. This becomes active only when triggered by circumstances. In today's society the threshold of abuse and hardship required to trigger this mechanism is very high. This is because potential insurrection is strongly contained by force of law. Nevertheless, once triggered its effect is catastrophic. It precipitates violent social revolution. In this, the individual is prepared to sacrifice his miserable life to effect the destruction of the system that enslaves and oppresses his family and his peers.

History has taught the rich of this. They know of the danger. So reluctantly, they have engineered an artificial negative feed-back mechanism into the economy by enacting laws that re-distribute wealth back to the poor. Their reluctance is evinced by the miserly degree to which this re-distribution takes place. Their objective is always to maximise their own wealth. For this purpose they have carefully tuned the protocol of capitalism to maintain wealth disparity at as high a level as possible, but always just below the threshold of popular insurrection. Guessing where that threshold lies, as it is tossed upon the turbulent ocean of market forces, is the game of Russian Roulette in which the rich elite of society and their puppet politicians are perpetually locked.

Despite this circumstantially-enforced inclusion of negative feed-back, the rules of free market capitalism manage successfully to maintain an enormous disparity of wealth and well-being between the individuals of the human species. In place of a single egalitarian protocol by which every human would approach and respond to another, a whole gamut of divisive protocols has been imposed upon society. Among these are: master-slave, king-commoner, clergy-laity, bourgeois-proletariat, corporate-individual, employer-employee, manager-worker, DSS-unemployed.

The backbone of this structure, and the sub-hierarchies within it, is money. Individuals are assigned a worth within society. This is firstly according to their capital assets and secondly according to their saleable skills. But money is not a true measure of personal value. It is not even an approximate one. It can only measure value as perceived by those who control it. This is why accountants and company directors inevitably 'earn' a lot while equally hard-working and highly-skilled artisans 'earn' comparatively little. One's monetary value in society has little or nothing to do with the complexity of one's social or economic function or with the benefit it provides. This compounds both the real and the perceived disparity within society, and the resentment it engenders.

The disparity thus held in place by this structure has a negative effect on human society. Disparity inhibits and corrupts communication. Incommunication results in division. Division spawns fear

and distrust. Fear and distrust lead to conflict. Conflict leads to enforced containment of the weak by the strong. Enforced containment transmutes to oppression. Oppression leads to insurrection. Insurrection escalates into revolution. A new order is born and the cycle starts again under new management. Society is destructively unstable. It is accelerating relentlessly towards its own violent end.

Conclusion

Laws are universal. They apply in *all* circumstances. Their effect must therefore be in all places and at all times benign. They must be equally accessible to everybody and treat everybody the same. They must form an egalitarian protocol. The rules that regulate the society in which I live today do not do this. Therefore I must conclude that they are the wrong rules for a fair society. Members of Parliament are human. Each can see the universe and society only along his own unique and limited event horizon. He can understand what he sees only from his own point of view in time, space and the social order. And then only through his own [imperfect perception](#) and in terms of his own limited wisdom. Consequently no human parliament is capable of constructing an equitable system of law.

To be able to construct rules that can hold a complex dynamical society within the orbit of a benign attractor, one must understand perfectly the fears and circumstances of all whom those rules would affect. This cannot be achieved by listening to them. Nor by visiting them. Nor by studying them. Nor even by living with them. One must live and become as each of them. This means relinquishing the option to bail out when things get tough. It means cutting oneself off from the securities of wealth and social connection. It means casting off one's public identity. It means becoming truly "a man of sorrows and acquainted with grief".

It is reasonable to speculate that an egalitarian society is possible. Electrons live in one. Nature is one. Even [artificial machines](#) can be made to work under an egalitarian regime. But how could the rules that regulate them, once constructed, be equitably enforced? The answer, I am led to believe, is distributed control. Government must become from within. All the rules must become an integral part of each individual. He must become his own policeman. The rules must be "written in his heart".

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