DOUBLING THE MARSHMALLOWS

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The most important parameter to change is **our increased collective capability to defer gratification**. The process in which the international community is turning the individual concept of property into a more collective understanding that is protective of all humans and the ecosystem alike, is widely described as the corticalization of the property system. It is a broad array of strategies in property logistics and their underlying neurobiological and societal parameters that led to their development.
Deferred gratification as a psychological concept has been widely theorized since Freudian times, even though most findings from the 20th century hardly provided any feasible insights. One of the studies that attracted the most attention was the so-called marshmallow test conducted in the 1960s. You have certainly heard of the set-up in which small children are being offered a marshmallow to measure their impulse control and their overall ability to delay gratification. They are told that if they can refrain from eating it for 15 minutes, they will be given a second one. The reward doubles.

This test was a starting point for us to learn how to balance our pleasure-driven monkey minds. Knowing this also transformed substantially our relation to property. The old unrestricted property system found its origins in overcoming the monarchical societies of the 18th century, parallel to the invention of human rights. Property, freedom, security and resistance to oppression are listed as natural and inalienable human rights in the 17th Article of the Declaration of Human and Civil Rights (1789). Alongside the law of succession, ownership was permanently regulated: it evolved into the old code's political and societal value foundation of the emerging free capitalist economy. In the early capitalist context of the French Revolution, the designation of property as an "inviolable and sacred right" was a basic condition of "non-domination" (i.e., non-control) and thus most closely linked to new principles of freedom and equality.
It was almost too late when it was understood that the foundation of the unrestricted property order no longer stood for the independence of everyone, but rather for the rights of the possessors versus the non-possessors.

Although almost all constitutions of the old nation states later attempted to restrict property by amending that it must serve the common good, such legal bindings did not become part of our shared system of values.

It is still unclear what exactly led to every single administration failing to execute their public interest constraints: a general neurobiological deficiency, or just another cruel consequence of turbo-capitalism. In the last decades of the 20th century, the unrelenting competition for resources and their unsustainable mismanagement came to a foreseeable yet abrupt end, which contributed significantly to the crash of 2023. The system pre '23 was completely based on the massive consumption of the many and the extensive accumulation of wealth, resources and power in the hands of the very few. Both in terms of the market-dominated human social system, as well as in regard to the environment, it became obvious that private property was no longer a viable condition. Nonetheless, the vast changes in property management during the French Revolution and the subsequent transition into nation state democracy show that social

changes are not only the fertile ground but fundamental preconditions for alterations in the property system. The implementation of the radical bureaucracy that we face today is similarly leaning on these mechanisms.

For about 250 years, we, as a collective, have been making and justifying decisions that were instantaneously profitable but severely destructive in the long run. Neuroscientific findings have been emphasising for about 50 years now that it is the central characteristic of human beings to make decisions not purely impulsively but based on reason and with the future outcome in consideration. In the brain, the frontal cortex is responsible for decisions that are right in the long term but harder to make in the short term. The frontal cortex regulates emotions and action strategies, particularly in the sub center of the prefrontal cortex, in a way that impulses to gain quick rewards are held back to enable long-term planning.

This link could be made through a revision of the marshmallow test in 2011. Forty years after the first marshmallow test studies, neuroimaging data has shed light on the neural correlates of delayed gratification. Whether the time to double the reward can be kept is roughly summarized by the formation and the activity within the prefrontal cortex, the frontal area of the frontal lobe: The higher the activity in the PFC, the greater the likelihood that the children will be able to resist the shortterm seduction in order to double the reward. Interestingly enough, these early measurements of the prefrontal cortex activities are to some degree predictive of the tested child's social competence, their final grades and even their tendency to develop drug or alcohol addiction.
From an evolutionary perspective, the prefrontal cortex is the youngest area of the brain. It is characterized by economo-neurons, which, apart from humans, have only been detected in a few other organisms living in highly complex social systems, such as primates, whales, dolphins or elephants. The transition from Australopithecus, the "upright walking monkey", to the genus of Homo sapiens about 2.5 – 3 million years ago, is characterized not by the mere increase of the total brain mass, but by the wiring of the brain functions into the cerebral cortex as well as the prefrontal cortex, which was then in the process of being newly developed. This evolutionary development, called corticalization, enabled humans to live in large accumulations and to plan effectively into the future without constantly succumbing to quick rewarding impulses.

The prefrontal cortex is the part of the brain that has undergone the greatest development in the history of human evolution and thus also in the societies it has formed. In the early 21st century we have learned that society influences the size of the prefrontal cortex: it expands with the social complexity to which an individual is exposed. This was shown through an experiment in which rhesus monkeys were randomly placed into social groups. Over the period of fifteen months, the scientists who conducted this study were able to show that the prefrontal cortex of the randomly placed rhesus monkeys grew according to the size of the group they were placed in. Among humans, another study measured the size of the prefrontal cortex according to the amount of people the test subject was texting. It showed that the size of the prefrontal cortex is indeed linked to the size of the person's social network.[1/2]

After 2023, as global society began building large and profound so-

cial groups and densely interwoven networks that were deeply rooted in compassion and of higher complexity as their flat social media preliminaries of the 2.0 era, the average size of individual peer reference groups multiplied and the brain structure began to change rapidly – the activities of the prefrontal cortex increased. We call this the new corticalization, following the evolutionary term described above. Digitalization, which we like to view as a starting point for a much broader revolution in communication, has truly changed us for the better by helping us to "orchestrate thought and action in accordance with internal goals"[3] and to ultimately make decisions that are not as prone to the prospect of quick rewards.

In short, it can be said that we are stopping (or trying) to behave like pre-school children in front of the marshmallows. Thanks to our larger and better connected prefrontal cortexes, it got easier for us to make decisions that will pay off in the future, even if we are not the ones to collect the reward. We understand that we are not alone in the room anymore, waiting for a research assistant to bring us this reward. Instead, through constant exchange, we know that we need to double and share the symbolic marshmallows in order to feed everyone. The events of 2023 painfully showed that from both a practical and moral standpoint neither hoarding nor eating the gained marshmallows alone is a viable decision. There simply is no infinite way of producing marshmallows and there is no place left on Earth to invest or store such perversely large amounts of them.
I know that the marshmallow comparison is misleading, but the neurobiological results are not. Neither is the historical fact that property systems change together with society and vice versa. The crux of the matter was that we had no choice but to pursue the new corticalization of our behavior even faster, and the only thing that we regret now is that we did not start earlier.

We are still testing and adjusting to the new logic of taking on and sharing responsibilities towards living beings, nature and goods. While some guidelines have already become very clear, their implementation is still being tested in small scale experiments. At least, at this point, we can pull together some loose ends and dare an analysis of what has led to the grand shift in us and our property management.