COULD DEEP FAKES UNCOVER THE DEEPER TRUTH OF AN ONTOLOGY OF THE NETWORKED IMAGES?

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CAN ONE RESPOND TO A QUESTIONNAIRE WITH QUESTIONS? In the questionnaire he sent us for a special issue of *The Nordic Journal of Aesthetics*, Jacob Lund asks: "To which extent do the advent of operative images and machine vision and the increasing number of images that become networked change the ontology of the image?" If we agree with the statement that we can no longer "think of images as relatively individualized or delimited phenomena," but that, increasingly, "images seem to gain meaning and significance through their relationships with other images, and from being networked," what philosophical, political and aesthetic consequences should we draw from this (new?) state of affair? While genuinely attempting to address such issues, I will rather do so by formulating further questions than by bringing assertive answers.

CAN ONE EXPLORE THE SOCIO-POLITICAL ONTOLOGY OF IMAGES BY REMEMBERING POPULAR SONGS?

Instead of looking at images, the following pages will listen to popular songs, mostly drawn from the (white) (indie) rock tradition. Their lyrics have occupied our minds over the last half-century. Levering my reflection on their haunting persistence in our social memory goes beyond a mere rhetorical gimmick. It is meant to raise a more serious question: can these hits be retrospectively assessed as "true" *because* they stuck in our heads? In other words, can the sociopolitical valence of a semiotic object be measured to its poetical effectivity? And if so, shouldn't we consider songwriters (along with scriptwriters and filmmakers) as the main agents of socio-political transformations in our intensely mediated world?

IS THE ADVENT OF DEEP FAKES THE TIPPING POINT IRREVERSIBLY PUSHING US INTO A WORLD OF "POST-TRUTH POLITICS"?

The oldest song I will mention sets the stage for an all-toocommon conspiracist view of the media, regularly (and correctly) denounced as overly reductive and simplistic. What has later unfolded into scenarios such as *The Matrix* or *The Truman Show* was already set out by Frank Zappa in what I will call "the Slime hypothesis":

I am gross and perverted / I'm obsessed and deranged / I have existed for years / But very little has changed / I'm the tool of the Government / And industry too / For I am destined to rule / And regulate you

I may be vile and pernicious / But you can't look away / I make you think I'm delicious / With the stuff that I say / I am the best you can get / Have you guessed me yet? / I'm the slime oozing out / From your TV set.

You will obey me while I lead you / And eat the garbage that I feed you / Until the day that we don't need you / Don't go for help, no one will heed you / Your mind is totally controlled / It has been stuffed into my mold / And you will do as you are told / Until the rights to you are sold.

I am the slime from your video / Oozing along on your living room floor / I am the slime from your video / Can't stop the slime, people, look at me go.1

Television, here taken as a metonymy for the media at large, is denounced as a screen, insofar as the screen necessarily hides something (behind it) whenever it shows something (on its surface).² With the Slime hypothesis, we remain firmly anchored in an indexical re-presentational approach, wherein the representing surface can be said "true" or "false" depending on its fidelity towards the deeper represented (absent) reality it claims to refer to.

Up until now, with only marginal and narrowly circumscribable lapses, we thought we could rely on the self-evident indexicality of most photo- and videographic images circulating in our mediaspheres.³ The advent of deep fakes—i.e., of forgeries resulting from algorithmic manipulations indistinguishable to the naked eye from a fully trustworthy indexical representation of an actual event—strikes a fatal blow to the trust one could (in most cases) put in what looked like (and was presented as) indexical representations of reality. Hence the avalanche of current laments about our epochal and catastrophic social collapse into the conspiracy-ridden world of "fake news" and "post-truth politics."

ARE DEEP FAKES MERELY THE SYMPTOM OF AN EPISTEMIC DRIFT OF TRUSTWORTHINESS, AWAY FROM OBJECTAL INDEXICALITY, TOWARDS AGENTIAL COMMONALITY?

The evolution that led from local lapses of trust towards photographic evidence (Stalin's administration erasing Trotsky's presence from the historical archives) towards an overall distrust of any form of documental evidence is usually explained through a positive reference to the improvement of the technosciences (ever more efficient in their capacity to simulate reality), balanced by a negative reference to dangerous tendencies in the social sciences (ever too hasty to discard reality as "a social construct"). This collapse of trustworthiness is well expressed by Tim Kinsella, poet-singer-composer of many Chicago bands over the last three decades, in a chorus that could qualify as an anthem of our much bedeviled "relativism": "Anything I can / Mistake in the dark / For being what I am looking for / Is good enough for me."⁴ Not only is our access to "reality" made uncertain (or impossible) because of the walls of screens that multiply perfectly simulated forgeries (deep fakes) all around us. The collapse is made hopeless by the fact that we satisfy ourselves with experiences acknowledged to be illusionary: the "real thing" I was actually looking for no longer has any privilege over the simulated substitute I happen (to be led) to mistake for it in the dark.

Instead of praising our technical capacity to simulate, the better to scold the social sciences' complacency towards fakeness, what it we turned the tables around? What if we mobilized the social sciences in order to find a positive explanation for our precious ability to deal with fakes? We may thus be led to account for an epistemic drift of trustworthiness. This drift would relocate the grounding of our trust away from individual objects or scenes secured in their objectivity through a (bygone) indexical contract. It would bring it closer to a relational commonality that anchors our agency in pragmatic entanglements. Couldn't the ever more fragile objectivity of our ever more luring mediated world be positively compensated for by the ever more entangled agency of our ever more interdependent individuations? Could the collapse of our indexical ontology of the image be redeemed by the emerging evidence of our agential commonality?

ARE FILTER BUBBLES THE PRICE TO PAY FOR THE ECHO CHAMBERS THAT ARE NECESSARY TO CONSTITUTE A SHARED REALITY IN MEDIARCHIES?

The "networkedness of the image" alluded to in Jacob Lund's questionnaire can find a good illustration, as well as a promising leverage effect, in an analysis of the Internet's infamous "filter bubbles" recently presented by Ophelia Deroy. After the potent description provided by Eli Pariser⁵ a decade ago, it has become common practice to blame the rise of "populist" political agendas on the stultification of the multitudes caused by the individuals' isolation within algorithmic "filter bubbles" that imprison them in the "homophilic" reinforcement of a narrow set of redundant, congruent, and gregarious beliefs. Since we are prone to pay attention to what we can recognize and feel comfortable with, and since the recommendation algorithms are designed by platform capitalism⁶ to maximize the attraction and capture of our commodified attention, our screens tend to be fed and fitted with contents that filter out whatever would be significantly different from (and repulsive to, because perceived as potentially threatening to) our previously ingrained ideological assumptions. As a consequence, the "public sphere" would be fragmented into tightly separated sub-spheres, each of them marinating in its own self-congruent worldview, generally intolerant and aggressive towards the other sub-spheres, with which the possibility of dialogue and understanding would rapidly shrink.

While in no way denying the reality of such tendencies, nor the risks associated with them, Ophelia Deroy invites us to rather measure the functional necessity of filter bubbles, apart from their drawbacks.⁷ Her main points are that: 1° trust and truth are always collectively constructed so that a population can roughly agree on what it considers as a "shared reality;" 2° thousands of years of social evolution based on the practice of face-to-face conversation have led us to develop an extremely fine sensibility of joint attention which is suddenly challenged by our new technologies of massive remote communications; 3° the Internet should not so much be considered as a depository of information, but rather as "an epistemic recommender system," whose first and main achievement is to allow for the construction of some amount of "shared reality;" 4° what is generally denounced as "filter bubbles" is in fact constitutive of the systemic working of the "echo chambers" that are necessary for a population to homogenize and synchronize its perceptions and activities so that issues can be targeted and responded to in a coordinated

fashion—whereby the Internet is currently taking over the tasks previously performed by "the mass media," as described by Niklas Luhmann.⁸

This systemic approach echoes in significant ways the Slime hypothesis shared by Frank Zappa and Noam Chomsky: analogue or digital, the mass media have, indeed, existed for years, they tend to operate as the tool of the Government and industry too, by being *destined to rule / And regulate* our attentions. Even if our mind is not totally controlled, it has been stuffed into their mold, and we tend massively to do as we are told. While this crude and overly simplistic statement of "mediarchy"9 corresponds to very different modes of operations, from the televisual landscape of the 1970s to the current hegemony of platform capitalism, it paves the way for a redefinition of the socio-political ontology of images based upon an affective congruence within the multitudes rather than upon the sole adequacy of a representational device towards its represented referent. In other words: the efficacy (and dangers) of deep fakes should be located not so much in their higher simulating power, but rather in their capacity to resonate within the current affective state of the multitudes.

Approaching filter bubbles and echo chambers as a systemic necessity of our massive social aggregates, however, may reveal a hidden merit in the Slime hypothesis: what if, in spite of its unsavory garbage smell, the Slime was, after all, precious for its stickiness? What if it provided the glue that keeps our attention assembled (if not satisfactorily focused) around certain target issues, and around certain possible responses? This, in its turn, may raise another question: should the glue keeping together our social aggregates be attributed to the mediarchic Slime fed to them? Or wouldn't it be more accurate (and more promising) to locate the stickiness on the side of our subjective affects as receivers, rather than on the side of the content (images, ideas, stories) distributed through our ubiquitous screens?

CAN WE TRUST AN ONTOLOGY OF COUNTING AND MATTERING TO COMPOSE A STABLE AND JUST COMMON WORLD?

In the song *Harrowdown Hill*, which reacted to the media manipulations whereby British and US leaders (not-so-deeply) faked the presence of weapons of mass destruction to launch their war against Iraq, Thom York, the singer-poet of the band Radiohead, asked an emblematic question: *Did I fall or was I*

pushed? If "media determine our condition," as Friedrich Kittler famously stated,¹⁰ one never fully knows in which measure our supposedly "free" actions result from intentional foresight, clumsy identifications "mistaken in the dark," or cynical manipulations "pushing" us to believe and do things against our grain. Once the Internet is no longer seen as merely a depository of information, but rather as an "epistemic recommender" and as an "attentional curating system,¹¹" algorithmic governance¹² fully manifests the constitutive ambivalence of its accounting operation. And this is precisely what Thom York repeats in the chorus: *We think the same things at the same time / There are too many of us so you can't / There are too many of us so you can't count.*¹³

Since Plato and throughout the long history of this discipline we call "philosophy," it has been the nightmare of "opinion" to see a "false" statement taken as valid simply because of the great number of people believing in it. "Truth" differentiates itself from opinion precisely insofar as it is supported by something else (more "objective") than the quantitative aggregation of ("subjective") beliefs. In the nightmarish world of Harrowdown Hill, images, ideas and stories become wirklich (i.e., true because efficient) as soon as enough of us think the same things at the same time and there are too many of us so you can't count—and this, independently of the factor that pushed us to aggregate around a particular belief (argumentative debate, algorithmic curation or deceptive manipulation). The "objective" adequacy between the representative image/idea/story and the referent it is supposed to represent is literally discounted within an echo chamber where all that counts is the count itself. If you hold a marginal belief, which you may have good reason to defend as true, your belief does not matter: there are too many of us so you can't count.

Rather than pitting "philosophy" against "sophistry," we could instead listen to what social psychology, cognitivism, and the neurosciences bring to light when they stress the importance of the intersubjective framing of our truth judgement. Knowing (or assuming) that we think the same thing at the same time and that there are many of us doing so undoubtedly plays a crucial role in the daily constitution of our "shared reality": it is "our reality" mostly insofar as it is shared among many of us, insofar as certain issues "matter" for enough of us, in a tightly-knit entanglement of mattering and meaning.¹⁴ Up to a certain point, it is indeed the count of the beholders-believers that counts, as much as the adequacy of the representation to the represented.

More than the epistemic drift of trustworthiness away from objectal indexicality (truth) towards agential commonality (count), the main issue, then, is our capacity to compose a stable and just common world on the basis of such an ontology of counting and mattering. In other words: how can we understand, select, steer, and regulate the production and the circulation of networked images so that the adherence and revulsion they encounter in our interdependent bodies collectively push us towards less ecocidal and less unjust distributions of benefits and burdens?

WHAT WOULD AN ONTOLOGY OF NETWORKED IMAGES GAIN IN CONSIDERING OUR ENVIRONMENT AS THE "PRE-INDIVIDUAL" ENTANGLEMENT OF OUR LIVING MILIEUS?

In his current re-reading of the "worldly sensibility" afforded by the 21st-century networked media in the light of Gilbert Simondon's theory of individuation, Mark B. N. Hansen alluded to the promising perspective offered by Simondon's concept of the "pre-individual" in order to overcome some of the too-oftenrehashed aporias opposing scientific objectivity to subjective relativism.¹⁵ What is the "pre-individual?" Simondon often presents it as a reserve, an accumulated metastable stock of potential developments from which the process of individuation will draw its resources, its raw materials, its energies.¹⁶ The pre-individual is not to be understood as that which precedes individuation, but as a meshwork of vet-unspecified relations which will accompany individuation throughout its process. More crucially even, the pre-individual is not to be conceived as a reserve one would carry within oneself: it is rather to be identified with the milieu within which individuation takes place. The classical conundrum opposing an individual subject to the set of objects present in her environment is radically reconfigured and overcome by Simondon, insofar as the pre-individual and the environment can be considered as co-extensive.

The individuation framework, as it can be drawn from Simondon's work, suggests a Copernican turn which provides an alternative, or at least a complement, to the Slime hypothesis. We no longer need to add a slimy glue in order to keep together members of the public imagined as made up from originally isolated individuals. On a whole range of superposed scales (selfhood, families, classrooms, neighborhoods, associations, cities, regions, nations, mankind, planet), we can observe processes of individuation, whereby the pre-existing entanglements of relational interdependencies are constantly (even if discontinuously) reconfigured in order to adapt to their metastable inner drives as well as to their evolving context. Even if the punctual addition of some form of glue may be welcome in certain cases, the pre-individual hypothesis invites us to consider the "subject" and the "objects" composing her "environment" as always-already bound together within multi-layered relational processes of individuation.

What does such a Copernican turn alter in our ontology of networked images? While not at all irrelevant, the question of the adequacy between the representative image and what it claims to represent is subordinated to the question of the relational role played by the image in the processes of individuation. Fake news or deep fakes, when they circulate, are far from being pure negativities (untruth, unactual fictions). They provide, trigger, comfort, nourish actual affects in the bodies through which they travel. Since Simondon describes affects as the inner resonance of the external relations that co-individuate an individual and her milieu, he helps us understand the constitutive role played by deep fakes—a role which is certainly different than the one played by indexical images, but in no way less real.

The pre-individual hypothesis thus invites us to raise our approach to a higher and larger scope: from the subjective psyche in contact with iconic objects to the socio-political, as well as physical-biological, milieu which individuates itself through the related individuation of its composing entities. This elevation, in its turn, allows us to identify a crucial dimension of the networked images that currently circulate among us: their spatial scale.

In order to understand what is at stake with these issues of scale, one needs to remember that Simondon constantly refers to the notion of *déphasage* to characterize the metastability of individuation processes. The dynamics of such processes principally rest on the "phase differences" that can be observed between them. These phase differences, put under the pressure of the entanglements that make them dependent upon each other, is the main reason why they are "meta-stable," and unpredictable to our best efforts at modelling. I want to stick to the French word used by Simondon because *déphasage* suggests an active and interventionist process that is not limited to dealing with insufficient coordination between phase differences: it suggests that certain processes which may have been previously attuned happen to be de-phased. This, I believe, provides a good intuition to understand what is at stake in our current circulation of networked images.

In the logistics of commodities as well as in the distribution of images, sounds, discourses, ideas and stories, globalization has de-phased countless processes of individuation that had previously settled in different forms of relative stability. Our ontology of images must crucially address the many dephasings generated by the unpredictable processes of creolization discussed by Édouard Glissant¹⁷ in his poetic analysis of globalization. To my knowledge, no song better stages the challenges raised by such questions than Paul Simon's *Boy in the Bubble* that opened his world-famous *Graceland* album:

It's a turn-around jump shot / It's everybody jump start / It's every generation throws a hero up the pop charts / Medicine is magical and magical is art / Think of the boy in the bubble / And the baby with the baboon heart

And I believe / These are the days of lasers in the jungle / Lasers in the jungle somewhere / Staccato signals of constant information / A loose affiliation of millionaires / And billionaires and baby

These are the days of miracle and wonder/This is a long distance call/The way the camera follows us in slo-mo/The way we look to us all / The way we look to a distant constellation / That's dying in a corner of the sky / These are the days of miracle and wonder/And don't cry baby, don't cry, don't cry.¹⁸

From the premature baby technologically maintained alive in a hospital bubble to the filter bubbles of platform capitalism, from lasers in the jungle to hunger in the slums, from medicine to magic, from the anxieties of family life to dying constellations, from baboons' hearts to billionaires' penthouses, the song lifts us into a whirlwind which inextricably mixes our affective realities with their mediarchic representations (camera in slo-mo, song up the pop charts). The images generated through the dephasings of globalization become its agents, carried away by their own process of individuation. The heterogeneity of the temporal and spatial scales involved in these mind-bogglingly entangled processes of individuation clearly exceeds, overtaxes, and threatens to crush our individual capacity to face up to the flows of images we are bombarded with: *these are the days of miracle and wonder*, but they make us feel like boys in the bubble (*don't cry baby, don't cry*).

CAN OUR ACCIDENTAL MEGA-STRUCTURE OF PLANETARY COMPUTATION, ALONG WITH THE WORLDLY SENSIBILITY IT ENHANCES, GENERATE A FERTILE COMPOST ON WHICH TO GROW OUR SHARED REALITIES?

In The Stack as well as in The Terraforming 2019, Benjamin Bratton invites us to embrace the unprecedented possibilities raised by "computation at a planetary scale," the automated processing that currently detects, filters, and commodifies our deluge of staccato signals of constant information.¹⁹ Beyond a reasonable distrust towards control and surveillance, we should equip ourselves with an updated conception of the ontology of the computationally networked image, and mobilize the "accidental mega-structure" of the Internet, to fine-tune the count of what really counts in our common destiny as Earthbound creatures. Along comparable lines, Mark B.N. Hansen called for a re-appropriation of the "worldly sensibility" set in place during the past decades with billions of sensors (microphones, cameras, detectors) and computational devices (from microchips to server farms) now (unequally) distributed on the surface of planet Earth.²⁰ The collection of automated (operative) images, their algorithmic manipulation, their networking are currently put in the service of dubious, if not clearly self-destructive, causes. Subjected to the logic of capital rather than to the care of our living milieus, they are directed towards runaway forms of individualization which have ecocidal as well as egocidal consequences on our processes of common individuation.

As Ex Models anticipated in 2001, "*There is no inspiration / Only computation / There is a camera hidden / A psychic television / And I don't know what's what.*"²¹ In the age of ubiquitous computation, cameras no longer follow us in slo-mo: they are hidden "everyware," reconfiguring our attention from the inside of our expectations (like a psychic television), and we know neither what's to be seen, nor what's to be desired.

The Copernican turn brought about by the pre-individual hypothesis may help us feed-forward the data collected by our worldly sensibility into alternative modes of accounting, geared towards less unequal and less destructive ways to share our entangled realities. This obviously requires thinking the ontology of computationally networked images at a planetary scale: it is crucial for our planetary realities to be shared within planetary echo chambers. This, in turn, requires approaching computation as a means of composition of a common world. Our shared realities are bound to be composite, multicultural, heterarchic and self-contradictory. What certain populations will see as medicine, other populations will see as magical, while others still will experience as art. Some technological wonders will pass for providential miracles.

Bardo Pond provides a perfect illustration of the ambiguities and ambivalences inherent in this messy process of composition understood not only through the goal of "putting together" diverse beliefs but, more importantly, as the need to "compose with" distasteful realities: "*Jesus is coming / I'm willing to wait / Don't know about you / Well I'm willing to wait.*"²² This being the only lyrics repeated at length in a ten-minute song, one is free/bound to wonder whether it is to be heard as a declaration of faith or as miscreant's bragging. A deep-fake anthem of Christian Rock?

The (multi-secular) phasing-in of a planetary process of heterarchic composition cannot go without the local de-phasing of entrenched values and beliefs. Faced with a worldwide compositional challenge, we are bound to see some people's jewels treated by other people as garbage. The ontology of computationally networked images we need at a planetary scale will have to be *compost-humanist:*²³ slime and garbage, deep fakes and superstitions are likely to make up the larger mass of the circulation. *Shit happens!* The main challenge is to prevent waste, but it is no less important to understand how garbage can be turned into a fertilizer. Hence another question: who will be the worm-like creatures capable of turning our slimy planetary accumulation of garbage images into a fertile pile of compost?

CAN SIMONDON'S ANALYSIS OF THE CYCLE OF THE MENTAL IMAGE PROVIDE A COMPASS TO ORIENT OURSELVES WITHIN THE RELATIONAL DYNAMICS OF THE NETWORKED IMAGES?

Automated computation will not (suffice to) solve the puzzles of our necessarily planetary processes of individuation. While algorithmic worms can crawl the internet in search of references, the images that circulate and operate within our communication networks are bound to pass (in some of their avatars) through human bodies who filter them in the form of *mental images*. Here again, Gilbert Simondon provides us with a set of powerful intuitions, highly relevant to update our ontology of networked images to keep up with the demands and threats of the Anthropocene/Capitalocene/Plantationocene.

In a course delivered in 1965-66 about *Imagination and Invention*, Simondon describes a "cycle of the image," by which human subjects construct their mental images, and through which

images are recycled in three moments. The first moment-and this is a crucial remark to keep in mind-takes place before any form of contact between the (future) beholder and any external object: an *a priori* image is already present, in its embryonic state, within our body, in the form of instinctive movements, uncontrolled nervous pulses, *pre*flexes, drives, expectations and anticipations. A most primitive example would be the way a baby, as soon as he comes out of the bubble of the mother's womb, gets his lips ready to suck a breast he still has never encountered before. A certain image of the nipple is indeed already present in him, even if his eyes are still closed and his discriminating intellectual power non-existent. This a priori image is rooted in our body's most basic capacity to premediate24 what it will need in order to survive within a fundamentally unknown and unknowable environment. "Motricity precedes sensoriality"²⁵: the first stage of the cycle builds images that are properly speaking hallucinatory: mere projections onto the outside of something that is needed (or feared) because on the basis of an internal necessity.

The second moment of the cycle puts our body in contact with an external object, whose *a praesenti* image becomes a locus for a rich exchange of information. It is during this second stage that the cognition adjusts its perceptions, categorizations and responses to the feedback it receives from the object it has isolated in the external world. Through perception and interaction, the *a praesenti* image is progressively cut out, corrected, tailored to fit as closely (i.e., as truthfully) as possible to the evolution of the object in relation to which it is constructed—or from which it receives its imprint, since the exchange can be apprehended as going both ways.

The third moment of the cycle continues after the object is no longer in the subject's perceptive or agential field. An *a posteriori* image remains imprinted in the body's memory, where it continues to be active by resonating, affectively and cognitively, with other co-existing images (during activities like recollection, reflection, dreaming). Simondon insists upon a certain agential autonomy of the *a posteriori* image within our psyche: the memorial imprint acts as a "sample of a situation," "an *analogon* of external reality," which is imported into our worldview, and which constantly has to renegotiate its place with the other occupants, in order to maintain a minimal level of consistency in this worldview.

This *a posteriori* image operates towards our environment in the same manner as what the Ancient Greeks called a *symbolon*, the broken part of a pottery shared between friends which was used as an identifier in primitive forms of blockchains: if a person claims to be sent by the friend, the perfect matching between the two parts of the broken pottery testifies of the authenticity of the claim. Similarly, the mental image we construct in contact with certain objects of our external environment should be considered as a *symbolon*, insofar as it marks (and sometimes scars) our body with the imprint of certain encounters, and insofar as it binds us to certain relations and obligations. This is why Simondon is recurrently led to consider the mental image as a *"voult,"* i.e., as a *spell* endowed with some of the powers we associate with witchcraft and sorcery.

Here again, the mental image is not subjective, nor objective: it is both and neither at the same time. Just as the pre-individual hypothesis led us to consider our (external) environment as a reserve from which we draw opportunities and resources to further our (internal) individuation, while simultaneously contributing to the individuation of our milieu, similarly, the mental image should be considered as a part of the external reality injected into our body, as an app we host in order to relate to our world better, and as a map we use to orient ourselves in.

[The image is] a synthesis in equal proportion of endogenous motor energy and information coming from the milieu, it is a concrete *symbolon* of the relation between the subject and the milieu; this particular mix represents a point of insertion of the mental activity in the milieu; it condenses a situation, it preserves it with its network of forces and of tendencies, and it allows for its resurgence.²⁶

As early as 1966, Simondon's mental images are therefore already conceived as "networked images": they attach us to past encounters, to constantly evolving cognitions, as well as to social obligations with human and other-than-human entities. One of the most strikingly recurring words used by Simondon in the analysis of the cycle of the image is the verb *to recruit* (as in a military draft). Images are recruiting tools, thanks to which we manage to draft external objects to serve our logistic needs (as it is the case with J.J. Gibson's affordances). But they are just as often recruiting devices through which our milieus draft us to perform certain actions needed by *their* processes of individuation.

What appears clearly in Simondon's cycle of images, however, is that questions of truth (defined as an adequacy between the representation and what it represents) are mostly located at the second stage of the cycle. The whole point of the exchange of information between external objects and human perceptions is to adjust, as accurately as possible, the image to its referent. And of course,—let's put this in capitals and italics so nobody can accuse me of discounting the importance of truth—*it is crucial for any society to give itself the means to develop truthful representations of itself and of its environment*.

This being stated loud and clear, it is no less important to take note of the fact that, by focusing narrowly on the sole question of truth, one foolishly neglects the relevance and the impact of the first and of the third stages of the cycle. Hence another question: what would an ontology of networked images look like if it paid as much attention to the *a priori* image and to the *a posteriori* image as we currently do to the *a praesenti* image?

WHAT WOULD IT BE LIKE TO LIVE WITH DEEP FAKES?

No less than truth fulrepresentations of selected aspects of ourselves and of our environments, images do function as hallucinations (a priori images) and as spells and symbola (a posteriori images). In the first case, their function is not precisely to depict an actual reality, but rather to prepare our sensory-motor attitudes: 1° to catch a future reality when it provides an opportunity (pre-open our lips to the equivalent of a nipple from which to draw milk), or 2° to escape a future reality when it threatens us with a possible danger (pre-accelerate our bending our head in order to dodge a forthcoming blow). Whether or not we truthfully identified a blow or a milking opportunity, enhancing our training to perform such vital moves may be a most important function in a world full of uncertainties. The hallucination of the *a priori* image "enacts, towards the future, the amplifying projection of the subject's present potentialities."27 Tim Kinsella's provocatively relativist statement may be justified at this level: "Anything I can / Mistake in the dark / For being what I am looking for / Is good enough for me"—as long as this blindfolded exploration can lead me to get in touch with an unexpectedly useful tool or with an unsuspected friendly hand.

Seeing the images distributed and redistributed in our digital networks as spells and *symbola* may be much more realist, accurate, adequate—"true"?—than trying to judge them by the sole standard of their correspondence with the reality they claim to represent. The networked images should not only be conceived as images that circulate within digital networks but, much more importantly, as images whose main purpose is to build, maintain, and hone a relational network of sympathizers. If there is a lesson that the alt-right has learned better than anyone else, it certainly is that images function first and foremost as *recruiting devices*. No less than accurately depicting the outside world, they must powerfully attach us to each other. The broken halves of pottery exchanged in Ancient Greece did not represent anything: they validated friendships and secured obligations.

As we already saw, for better (rarely) or for worse (often), the power, the strength, and the reality-effectivity (*Wirklichkeit*) of an image depends as much on the count of those it manages to recruit as on its sheer truth content. The ontology of the networked/ networking image should therefore be approached in terms of the composition of desires and beliefs it vectorizes, as Gabriel Tarde suggested more than a century ago and as Maurizio Lazzarato reminded us more recently.²⁸ *With whom* we believe/desire is no less important than *what* we believe/desire. The recruiting force of deep fakes does not make them true. But it gives them a real efficacy in forging/sculpting what tomorrow's world will (truly) look like. Instead of merely discounting deep fakes, we will have to learn to discriminate among them, on the basis of their networking effects: with whom they aggregate us and, most importantly, *to what end*?

Living with deep fakes raises not only questions of sociality and politics, but also of psychology and aesthetics. How will deep fakes affect our ways of seeing? Deerhoof's song *Jagged Fruit* may provide a suggestive glimpse into a (dystopian) future where the images would be indistinguishable from the social relations, affective reactions and bodily movements they vectorize (translate, transduct):

Thinking about a boy who sings yesterday / Talking about girlie things that's today / My life won't start

Hating you and everyone yesterday / Liking you and everyone that's today / I can't decide

Get your hands out of pockets hooray / Take a break, look up, and say yeah way / Get your hooves out of control uu yey / Shake your head step outside / Take a left golden green / Left is right on your side

Massive dot bling bling moon

Gimme gimme shining to my eyes / History is chirping for your part / Gimme gimme shining to my eyes.²⁹

Deerhoof just cannot sound dystopian: whatever ontology of networked images may come to surround us with deep fakes, their song suggests we will be able to shake our head, step outside, take a break, look up and say yeah way. In a deep-faked world, our life may never (really) start, we may never be in a position to make a (wise) decision, constantly balanced between vesterday's detestations and today's likes, we may never know whose side we're on (left or right?)—but Satomi Matsuzaki's voice announces a future as joyful (hooray) and unpredictable (out of control) as Greg Saunier's drumming. Massive deep fakes may immerse us in bling bling hallucinations, where images have resorbed into feelings of non-figurative impressions (massive dot, shining), ambiances, atmospheres, ecstasies and dispositions.³⁰ But who knows if relational bodily movements and hapticality³¹ may not be more significant and empowering than iconic representations? Moving-with may bring deeper truth, and steer stronger believingwith, than merely looking at indexical screens.

WHAT DEEPER TRUTHS EMERGE THANKS TO THE ADVENT OF DEEP FAKES?

How can we reassess the advent of deep fakes in light of Simondon's cycle of images? While their fake indexicality can certainly generate damaging confusions as far as the second stage of the cycle is concerned (since we are presented with a false pretense of a mediated *a praesenti* image), and while their deceptive realism can strengthen their recruiting power, the ontology of the networked/networking image should be much more concerned than it currently is with the inner drives, needs, preflexes, expectations and anticipations which constantly push our perceptions towards hallucinatory projections. One can fairly easily imagine a techno-fix that would help repair the potential damage done by the techno-miracles and wonders of deep fakesthrough an algorithmic procedure of authentication based on block-chains, similar to the NFTs (Non-Fungible Tokens). It will be much harder, however, to neutralize the strategies and propensities that instrumentalize images (fake or true) towards goals that are damaging to our common good.

Paradoxically, deep fakes may help us identify more realistically the factors that expose networked/networking images to nefarious forms of instrumentalization—upstream and downstream from their adequacy or inadequacy to the referent they claim to represent. The deeper truth revealed by deep fakes is that the effective power of an image is to be located in the needs it fulfills in those who believe in it, as well as in the social relations it strengthens in those who recruit or are recruited through its circulation.

More interestingly, deep fakes could be resituated within a longer history of illusionary media, going from the *trompe-l'oeil* wall paintings of Pompeii all the way to our 3D virtual reality gaming devices. Their originality is not to be seen in their capacity to fool us into "actually seeing" something that does not exist, but in disqualifying a mode of indexical certification we were used to trust almost "blindly." By being grounded in the immediacy of the perceptive experience they offer to our senses,³² deep fakes lead us to question more systematically any impression of immediacy. In other words, they force us to suspect (and see) the mediation we spontaneously ignore (neglect, scotomize) when we look "through" our screens, rather than looking "at" them.

WHAT IF DEEP FAKES SMASHED THE FLOODGATES OF A SELF-ASSUMED ARTIVIST ONTOLOGY OF HYPERSTITIONAL IMAGES?

It may be too banal and reductive, however, to limit the effect of the advent of deep fakes to increasing our critical distrust towards mediations. Conversely, it would certainly be too foolish and irresponsible to embrace a world of blind hapticality. And it certainly seems contradictory to predict both at the same time. But what if this contradiction needed to be seen rather as a complementation? Here again, questions sound better than responses.

What if we considered deep fakes as messages received from alternative worlds? Or from possible futures? What if these possible futures were inspired by alt-left artivists, more often than by alt-right activists?

What if deep fakes were the perfect recruitment vector for hyperstitional activism? Why haven't you heard of "hyperstition," a concept Nick Land defined as "semiotic productions that make themselves real?"³³

[Hyperstition] can be defined as the experimental (techno-) science of self-fulfilling prophecies. Superstitions are merely false beliefs, but hyperstitions—by their very existence as ideas—function causally to bring about their own reality. [...] Hyperstition can thus be understood, on the side of the

subject, as a nonlinear complication of epistemology, based upon the sensitivity of the object to its postulation [...]. The hyperstitional object is no mere figment of 'social construction,' but it is in a very real way 'conjured' into being by the approach taken to it. [...] Capitalism incarnates hyperstitional dynamics at an unprecedented and unsurpassable level of intensity, turning mundane economic 'speculation' into an effective world-historical force.³⁴

What if, instead of discrediting hyperstitional deep fakes as "lies" or "fictions," we considered them as forms of "premediation"? What if the dynamics of hyperstitions, operating as "coincidence intensifiers,"³⁵ powerfully espoused the dynamics of the *a priori* (hallucinatory) image, which, as we have already seen, "enacts, towards the future, the amplifying projection of the subject's present potentialities?"³⁶

What if the practice of witchcraft and sorcery—duly accompanied by an awareness of the darker and more dangerous sides of belief/desire dynamics—were better fitted to the type of experimentation involved in today's artivism than the naive benevolence and delusional mastery claimed by the scientific attitude?³⁷ What if the risks of deep fakes operated by hyperstitional alt-left artivists were undeniable, but incomparably smaller than the risks of letting the current world order pursue its hopelessly rational self-destruction of our living milieus? What if, as Seal sang, "*We're never gonna survive unless / We get a little crazy*?"³⁸

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- 1 Frank Zappa, "I Am the Slime," *Overnite Sensation* (Los Angeles: Warner Brothers, 1974).
- 2 Mauro Carbone, *Philosophy-screens: from Cinema to* the Digital Revolution (Albany, NY: SUNY Press, 2019).
- 3 William J. Mitchell, The Reconfigured Eye. Visual Truth in the Postphotographic Era (Cambridge, MA: MIT Press, 1992).
- 4 Owls, "What Whorse You Wrote Id On," *Owls* (Chicago: Jade Tree, 2001).
- 5 Eli Pariser, *The Filter Bubble* (New York, Penguin Books, 2011).
- 6 Nick Srnicek, *Platform Capitalism* (Cambridge: Polity, 2016).
- 7 Ophelia Deroy, "Why Digital Bubbles are a Necessary Part of the World?". Presentation made in Vittorio Gallese's online webinar "Neuroscience and Humanities," February 5, 2021, https://www.youtube. com/watch?v=TKjQwFhrg38&t=2961s.
- 8 Niklas Luhmann, *The Reality of the Mass Media* (Cambridge: Polity, 2000).
- 9 Yves Citton, Mediarchy (Cambridge: Polity, 2019).
- 10 Friedrich Kittler, *Gramophone, Film, Typewriter* (Stanford University Press, 1999): xxxix.
- 11 Deroy, "Why Digital Bubbles."
- 12 Thomas Berns and Antoinette Rouvroy, "Algorithmic Governmentality and Prospects of Emancipation," *Revue R*éseaux 31–177, (2013): 163-196.
- 13 Thom York, "Harrowdown Hill," *The Eraser* (London: XL Recording, 2006).
- 14 Karen Barad, *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning (Durham: Duke University Press, 2007).*
- 15 Mark B.N. Hansen, "The Phenomenotechnics of Experience, or What is Knowing (on) the Internet (of Images)?". Presentation made in Vittorio Gallese's online webinar "Neuroscience and Humanities," April 2, 2021, https://www.youtube.com/watch?v=iOQSEvQVbuo.
- 16 Gilbert Simondon, Individuation in Light of Notions of Form and Information (Minneapolis: University of Minnesota Press, 2020).
- 17 Édouard Glissant, *Poetics of Relation* (Ann Arbor: University of Michigan Press, 1997).
- 18 Paul Simon, "The Boy in the Bubble," *Graceland* (Los Angeles: Warner Bros., 1986).
- 19 Benjamin Bratton, *The Stack. On Software and* Sovereignty (Cambridge, MA: MIT Press, 2015) and *The Terraforming 2019* (Moscow: Strelka Institute, 2019).
- 20 Mark B. N. Hansen, Feed-Forward: On the Future of Twenty-First-Century Media (Chicago: University of Chicago Press, 2014).
- 21 Ex Models. "It's on Television," *Other Mathematics* (Hoboken: Ace Fu Reords, 2001).
- 22 Bardo Pond, "Don't Know About You," *Bardo Pond* (Philadelphia: Fire Records, 2010).
- 23 Donna Haraway, *Staying with the Trouble* (Durham: Duke University Press, 2015).
- 24 Richard Grusin, Premediation: Affect and Mediality After 9/11 (London: Palgrave Macmillan, 2010).
- 25 Gilbert Simondon, *Imagination et invention* (1965-66) (Chatou : Éditions de la Transparence, 2008), 20.
- 26 Simondon, Imagination et invention, 21-22.

- 27 Simondon, Imagination et invention, 57.
- 28 Gabriel Tarde, The Laws of Imitation (New York: Holt & Co, 1903); Maurizio Lazzarato, Puissance de l'invention. La psychologie économique de Gabriel Tarde contre l'économie politique (Paris: Les empêcheurs de penser en rond, 2002).
- 29 Deerhoof, "Jagged Fruit" *Offend Maggie* (Portland, OR: Kill Rock Stars, 2008).
- 30 Gernot Böhme, Aisthetik Vorlesungen über Ästhetik als allgemeine Wahrnehmungslehre (Berlin: Wilhelm Fink, 2001).
- 31 Stefano Harney and Fred Moten, *The Undercommons:* Black Study and Fugitive Planning (Wiwenhoe: Minor Composition, 2013).
- 32 Jay David Bolter and Richard Grusin, *Remediation. Understanding New Media* (Cambridge, MA: MIT Press, 2000).
- 33 Nick Land, Fanged Noumena (1987-2007) (Falmouth: Urbanomic, 2011), 579.
- 34 Nick Land, "Hyperstition: an Introduction–Interview with Delphi Carstens", Orpha Drift Archive, http://www. orphandriftarchive.com/articles/hyperstition-anintroduction/, 2009.
- 35 Land, "Hyperstition."
- 36 Simondon, Imagination et invention, 57.
- 37 Warren Neidich, "Neuropower: Art in the Age of Cognitive Capitalism" in Arne De Boever & Warren Neidich (eds.), The Psychopathologies of Cognitive Capitalism: Part One (Berlin: Archive Books, 2013).
- 38 Seal, "Crazy," Seal (New York: Sire Records, 1990).