

Simondon: Investigating the Pre-Organizational

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Gilbert Simondon (1924-1989) was a radical process thinker; forms of relatedness and not objects were his focus. This is all the more remarkable as he was not a vitalist prioritizing Gaia or autopoiesis. He based his thought on analyses of technology / technics and communication / cybernetics, and in both cases rejected the perspective of the machine or message as in-itself objectifiable. Life objects, machines and societies, according to Simondon, individuate; that is, they are self-evolving, self-generating, and self-differentiating in what he calls processes of 'transduction'. Simondon, in fact, is more a thinker of transindividuation than of individuation. His is a theory of how the pre-individual leads to the transindividual, without the individual ever really playing much of a role. The motor of change and activity is 'transduction' – or a force of form taking that operates on the pre-individual level. Transduction is, thus, the life-force of Simondon's becoming. It is the energy that propels action, change, event and occurrence. No one in particular is the subject of transduction; transduction is the pre-individual manifestation of an all-encompassing process of genesis.

Simondon attends to the genesis of the person, society, information, collective, technology, organization, whatever. We will see that his descriptions of becoming are powerful and theoretically important; but that his ontology (or philosophy) needs to be debated. Transduction is very problematic; how or whether it is knowable (epistemology) remains unclear; and transduction would seem to escape the individual and/or collective will -- becoming an all-important life-force outside of political or ethical control.

Sub-processes of transduction, such as in the development of machines or even social technologies, have been rigorously documented and examined. Simondon studies genesis or how things come to be as they are. Currently there is renewed interest in his thought, we think because he challenges unreflective functionalism --- things are not just as they are: they evolve and become, oppose and breakdown, signify and deny, reveal and hide. Simondon provides a window on a world of complexification and change; he is a thinker of instability and dynamics; a thinker who matches our contemporary circumstances.

This introduction will discuss possible contributions of Simondon to organizational studies, where his process perspective challenges many

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usual approaches. The emphasis on the pre-individual triggers reflection of what could be called the 'pre-organizational' and poses a whole series of theoretical and practical questions.

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Simondon and Organization Studies

To turn to the field of research at hand, 'organization' has been portrayed in management literature volitionally --- i.e. as a product of managerial action, entrepreneurial creativity, and/or capitalist causality. The concept of 'organization' all too often assumes that form is to be imposed on matter, leadership asserted on a shapeless mass, and rational self-interest inflicted on others. The need for identity and purpose are simply assumed; where they come from and what relationships have to exist for them to happen, is unthought. It is assumed that 'entrepreneurs', 'leaders', visionaries, CEOs, etc. are individuated, and that they become members of groups (such as, 'management', 'capitalists', 'knowledge workers' etc.), and that they function in some sort of abstract context (such as, in a 'bureaucracy', 'strategy', 'technology', etc.), and finally that all of this will add up to a business 'organization'.

Simondon inspires us to question all the terms, does one really have the right to assume that all these identities actually exist? Where do these 'organizations' actually come from? How do their actors and actions, systems and structures, identities and products become what they are?

Simondon invites us to see organizations as socially co-determined technics. He developed a self-reflexive theory of the co-construction of identity, technology and action. According to him, co-individuation requires we reject the monads of dualism and the monism of holism. Because in holism, one is unable to distinguish between the one and the other; and in dualism, co-evolution and co-determination can only be epiphenomena. Real co-creation, which Simondon calls 'transduction', is an enfolding of self and other, life and environment, actuality and possibility. Simondon, in following of Spinoza,

asserts that transduction either strengthens or reduces aliveness by adding to, or subtracting from, a relationship's energy level. A technology, an individual identity or an organization, is a relationship between an inside and an outside. It takes energy to complexify, develop and self-create its self. The energy needed for (further) individuation belongs, according to Simondon, to the 'pre-individual'. Preceding individuation there are source(s) of possibility making living existence possible. In the pre-individual, there are enablers that do or do not facilitate (further) individuation. Individuation entails wellbeing, creativity and vigor. In the field of the pre-individual, there is the *possible*: to be defined as the potentiality for aliveness, relatedness and sociability. The possibilities of a field of the pre-individual define the individuation and exceed its actual circumstances. Organization is a product of pre-individual possibility, realized collectively.

The organization is grounded in pre-individual possibilities of sociability, interrelatedness, and commonality. The actual does or does not realize aspects of the possible. For instance, labor wherein relationship is frustrated and work is senseless drudgery, may be actual; but it denies the relatedness and *potentia* inherent to the possibilities of the pre-individual. Indeed, the energy and possibilities of the pre-individual are often repressed in contemporary society. Narrow narcissist ideologies of 'being-individual' override pre-individual possibility (DeBaise, 2012). 'Organization' is then employed as an empty catchall, with 'being-individual' as its hidden significance. Co-creation, co-evolution and co-individuation, all necessary for 'being-individual' to be self-assured, take action or relate to others, is not acknowledged. The individual is conceived of as a rational atom or monad, acting in defense of its own self-interest. The dualisms of self<>other and subject<>object are ontologically assumed as necessary points of departure. For Simondon, individuation is in relationship and is a process. It makes awareness, action, and evaluation possible. It is born from the pre-individual, which is its aporia. The person cannot analyze his or her personhood beyond a certain point. S/he has to assume her/his personhood in her/his thought, statements or relationships.

Organization studies in particular has been characterized by a blindness to the genesis of its object of study: organization. Despite repeated (in-)famous calls for theoretical and definitional rigor, from Pfeffer (1997) to Oswick et al. (2011), the object of study or the ontology of 'organization' has remained fairly unclear. Organization studies often seems principally to be attempting to be(come) a social technology of control and prediction, capable of facilitating organizational (re-)engineering. It would appear that its episteme or technics of 'organization' has been characterized by rational choice theory, dominated by the homo economicus, and grounded in the defense of hierarchy, exploitation and capitalism. Bruno Latour has (2010) even called for abandoning the concept of 'organization' altogether. There may be people and relationships, dominance and followers, systems and structures, traditions and routines, but there are no 'organizations'.

Fifty years ago, Gilbert Simondon (1958, 1989, 2009, 2011) framed much of what we believe 'organizational studies' could productively want to study in terms of 'technics'. The exchange between tool and tool-maker, person and instrument, implementation and circumstance, characterizes technics. Modern societies make enormous use of social technologies; that is, of procedures, protocols, rules and tools. Knowledge is externalized as social technology. But what sort of human existence or identities do these techniques, practices and methods assume and create? Most contemporary studies of technics just assume that social and physical technologies are produced and are productive. Simondon insists that there is much more to it.

In the field of organizational studies, Simondon's influence has come more via his study of technics than from his theories. While his exploration of technics and society has been successfully applied in contemporary STS research; references to him in organizational studies still remain scarce. The work that has appeared to date on Simondon in organizational studies points to him as a process thinker, focusing on individuation and co-creation. The current flood of interest in in Simondon has been mostly in communication studies, sociology and the philosophy of science.

In French access to Simondon's writings (unlike in English) does not pose insurmountable problems. There have been many contributions mainly coming from the field of engineering focussing on the relationship between technical innovation and organizational culture or environment (Moison, 1997 ; Forest, 2009 ; Goudot & Poizat, 2013). Recent work has focussed on agency within organization (Bencherki & Cooren, 2011 ; Bencherki 2015). And there has been attention for the role of affect in the organization of work and for the sources of the pre-individual in organizational change. Communication has been examined as a constitutive process of organizing, without prioritizing either the subject or meaning. Communication hereby freed of subject/object dualism and/or conceptual idealism; with the genesis of organizing to be found in interactive relatedness and not in an assumption of identity (Jardat, 2014).

At this writing, the first major text of Simondon in English (*On the Mode of Existence of Technical Objects*) has been announced for winter (2016) publication. Articles in organizational studies have tended to refer to one of the very few texts in translation [i.e. Simondon, G. (1964/1992) "The genesis of the individual," found in J. Crary and S. Kwinter (eds.)]. This text centres on the theme of individuation. Martin Wood (2002 ; 2005) inspired by Simondon has proposed a concept of leadership and organizational knowledge that is process and relationally grounded. Hereby he breaks with the tradition of assuming pre-constituted entities and experiments in process analysis. Damian O'Doherty (2008) has explored the aesthetic of disindividuation wherein pre-individual semi-autonomous heterogeneses makes visible the constitutive incompleteness of consciousness. Alexander Sthyre (2008; 2009 ; 2010) has made use of the concept of transduction to argue that entrepreneurship and innovation are not just matters of exceptional individuals. In Simondon's perspective, on-going processes of individuation are in constant contact with their social and technical environments, creating interactive complexity. And Michael Pedersen (2008) has via Deleuze's appropriation of Simondon explored how efforts to deal with stress actually contribute to reinforcing the ways stress is produced.

Simondon has been used to develop an alternative nonlinear and process focussed perspective on technology, which deserves to be called critical. Emanuele Leonardi (2010) has uncovered specific processes of exploitation in Post-Fordism; while Takaya Kawamura and Hugo Letiche (2013) have argued that evidence-based medicine denies the transindividual nature of the relationships that constitute healthcare. They argue that technological consciousness must not be allowed to precede our embodied consciousness. Ian Tucker (2013) has called upon us to focus on the semi-autonomous agency properties of technologically mediated surveillance. Remaining other texts have stressed a non-anthropological or socio-material approach to organization (Stephen Mills, 2014; Alexander Styhre, 2015).

Thus, there are texts that are borrowing one, or even a series of concepts from Simondon, in order to discuss or conceptualize organizational issues, but none of them really engage in debate with Simondon's philosophy, or try to individuate in the direction of a Simondonian approach.

Simondon: Technics and Individuation

Simondon analyzes becoming on two levels: one pertains to technics; that is, the human material interchanges characteristic of our built environment, processed foodstuffs and institutionalized healthcare, including our means of communication and mobility. The second level refers to human evolution and existence or how human practices, awareness and individuation has changed and developed over time.

(1)

Simondon sees technics as a relational process of circumstantial creation and innovation wherein concrete machines (see below) are complex and dialogic with their environments, including their human ones. Technics for Simondon stretches from invention, via tooling-up, to production. Technics are material, social and cultural. Technologies are merely machine- or tool- like. At any one time, a society's technics stands in relationship to its values, possibilities and

creativity. Technics includes everything needed to produce the key technologies and artifacts of the society, and technics deserve the same critical examination as does the literature, art, science, etcetera of that society. But the study of technics, as material, social and psychological forces, lags way behind the study of art, literature, politics, etcetera. Simondon is convinced that the weakness of awareness and knowledge of technics seriously enfeebles our society. Technics properly understood can be humanizing and civilizing, and a key source to cultural and social identity creation.

For Simondon, technics requires the interrelatedness of mind and materiality. There is a human input --- in an invention, in the design of fabrication, and in any actual production, but there are material determinants as well. Simondon focuses repeatedly in his writing on several examples of technics --- that is, on the human, material and environmental interaction(s) crucial to how the selected items are constituted. His examples include: how automobiles relate to their infrastructures, and the Guimbal turbine:

Simondon illustrated the contrast between abstract and concrete machines with the example of a hydraulic power station, known as Guimbal's turbine. The problem was to build an electric generator, small enough to be immersed into a water pipe. The major obstacle was the heat produced by the generator, which would cause its explosion at a critical point. Conventional engineers would typically look for all physics principles in order to reduce the size of the generator and subsequently prevent its explosion; then they would adapt the system for underwater conditions. The machine resulting from this conventional design is what Simondon labeled an "abstract" machine. By contrast the "concrete engineer" will imagine how an immersed generator would work, instead of striving to make the generator smaller and smaller before introducing it in a water pipe. The generator has to be in a container filled up with oil. It is supposed to be coupled to the turbine by means of an axe, and immersed into the pipe. In this configuration, water will perform various functions: it supplies power to the turbine, it keeps the machine working; it also exhausts the heat generated by the rotation of the turbine. Oil is also multifunctional: it lubricates the generator; it conveys the heat released by the generator to the surface of the container, which is cooled by the water; and it prevents water to come into the container, due to the difference of pressure between oil and water. The two liquors thus cooperate: the faster the turbine and the generator are rotating, the greater the agitation of oil and water will be, and the better is the cooling of the system. As Simondon emphasized, the aqueous milieu determined the design of the generator. The Guimbal turbine would never work in open air: it would explode. The concrete machine is tightly associated with its environment (in this case, the couple oil and water). Simondon calls individu technique (a technological individual) such a machine because it is self-conditioned, it does not exist as a possible machine prior to being in operation. Since the interactions between the various elements of the machine are not deducible from any set of scientific laws, technology is not science-based. (Bensaude-Vincent & Guchet, p8, 2007)

The Guimbal turbine was not simply engineered. The turbine cannot be understood simply as human understanding applied to material circumstances. *Hylemorphism*, or the assumption that mind governs the material, or form molds matter, is radically rejected. In *hylemorphism*, it is assumed that technics are a one-way street from the human mind/will to the material/product realization. Human mind supposedly is divorced from physical and/or biological reality; mind acts as an external order-creating supplement to the material reality. What technology is made of is allegedly of another ontological order from human identity, consciousness or plans. Only by adding human will to the *hyle* does one supposedly arrive at order, purposiveness, and performativity. Simondon rejects this (Aristotelian) dualism and insists that technics is made up of material<>consciousness relationality. The 'fold' is his metaphor for this principle of complex relationally (Barthélémy, 2010). Environment and circumstances co-create the possibilities for activity. The metaphor comes from Bergson and was later made renown by Deleuze. For Simondon, life is characterized by a membrane defining an inside and outside; i.e. defining a 'what comes in' and a 'what goes out'. Individual existence is shielded from its environment by the membrane that enfolds the 'self' and forms a fold in the world. For instance in mammals, there are fairly fragile organs on the inside that are shielded from the rigors (temperature, shocks, moisture, etc.) of their outsides. The membrane lets in what the organism requires and passes out the organism's wastes. The living organism is a relationship between an inside and an outside. The mammal cannot live without food, air, perspiration, etcetera; it requires its environment. Conceiving the mammal as an entity outside of such a context entails abstracting it to an idealistic unrealistic position. But this is just what happens when order is conceived of as determined from the outside, for instance by management.

In organizational studies, the focus has been on manmade order. For instance, in labor process theory, despite the name, actual processes of working or laboring were not normally studied. For Simondon 'labor' is a crucial issue. Eighteenth century craft workers may have owned their tools, but that did not protect them from exploitation and alienation. Simondon does

not agree with Marx that ownership of the means of production determines either the level or nature of alienation; (i) invention and design, (ii) tooling and development, and (iii) production and labor, have indeed been split off from one another. And most people are locked in their labor into the third phase --- they are attached to a pre-defined production process that they do not create, design or have real responsibility over. They have no 'work' in the sense of independent realization in technics of their ideals, abilities or will.

Simondon explains by using the example of brick production in ancient Greece. The master defined the mold and the clay to be used, the slave repeated over and over again the act of molding the bricks. Both the master and the slave were alienated because neither actually produced anything of their own design. The master exerted his power and the slave repeated the actions required of him. The slave had no living or creative link to the product, and the master never actually produced anything concrete. Most moderns are 'slaves' --- i.e. they labor in production processes over which they have no control. They do not actually invent, design, innovate or tool-up the production process. They simply repeat required actions over and over again. They have no 'tools', in the sense of having a means/ends relationship to their material circumstances. They repeat, what are for them fairly senseless motions. Technic's will to create, to use tools and skills to realize production, is lost. The unity of technics is broken and it ceases to function as a meaningful whole.

Thus, technics are human and material, cultural and engineered. Seeing technology as mere tools or utensils fails to understand the complexity of human <> environment relatedness. Technology is not (as some philosophers such as Heidegger have claimed) merely an inauthentic manner of dwelling; technics are our culture, give possibilities for innovativeness, and are deeply rooted in our very ability to exist. Technics are not strictly planned, subject to human mastery, or made-to-order. As in the Guimbal turbine, the technology came into existence in relationship to engineers, happenstance, serendipity and the territory where it was to be placed. Technics is a question of relationship, interaction and circumstance. Technics is a sort of *bricolage* --- it

entails making use of what presents itself, exploiting trial-and-error, and responding to unexpected emergence. To refer to another famous example, Alexander Flemming did not design antibiotics; they happened upon him. According to Simondon, discovery is not an act of rational will, but entails an ability to work with, be sensitive to, and to observe relatedness. Technics realizes new or changed relationships between the one and the other side of the membrane.

Simondon's concept of technics inspires innovative relational research into human<>world dynamics and opens non-dualistic perspectives on the politics of technology. It forms the basis of most org. studies research coming from Simondon.

(2)

The second level of analysis of becoming focuses on 'individuation'. How do things become what they are? There is the 'self', 'object', 'organization' and there is the environment or circumstance found outside of the (living) membrane. The individual or entity is interlocked with its surrounding environment. The 'self' is co-defined, co-develops, and is emergent. Contemporary industrialized peoples depend on lighting, heating, sanitation, etcetera for their very existence. Metaphorically, we live in a greenhouse of our own creation. Our physical being --- height, weight, health --- assumes that 'greenhouse'. We have evolved into other creatures than we were. What humanity has been, now is, and will (or will not) become, is all radically interrelated to its surroundings; and these are surroundings that we co-create and co-determine.

Some think that the externalization of knowledge in information technologies is the most important, contemporary environmental change. But our inability to control our political and economic circumstances with justice, or the biotechnical (re-)defining of the environment, could well prove more crucial. Humans constantly alter their environment; they change the world they can (and perhaps cannot) live in; and they change in response to that environment. Stress, hyper-activity, addiction and depression appear to be

very actual. From inside one's own moment, it is always difficult to see the self<>environment relationship and its changes.

Living existence occurs in the self<>environment relationship; there is no outside position from which one can observe it. Just because human life is a process of relatedness, it is very hard for human life to see, judge, and record its relatedness. It is like being a 'fish in water' --- how can a fish 'know' water as it cannot 'know' anything else and stay alive.

Simondon argues that humanity shares just such a radical dependency on its social and physical environment, and likewise the inability to see itself in its environmental context. Human thinking likes to depart from the individual; that is, from the assumption of the unique singular person. But humans cannot survive as individuals --- they would never be born, survive birth, or mature beyond a few hours, without a well-willing environment that makes their existence possible. Understanding the logic of radical relatedness is the existential basis for the study of social identity, becoming, and existence.

Human co-individuate with their physical and social circumstances. In relatedness we become who we 'are' --- or at least think we 'are'. Understanding of the social, physical and biological circumstances that make human existence possible evolves. Human societies exist dependent upon what their pre-individual environment makes possible. Without the pre-individual support and facilitators to their existing, they could not survive. Simondon constantly asks: 'What are the pre-individual matrices to existing?'

Simondon's philosophy

Simondon's approach to technics in specific, and to society in general, focuses on genesis --- i.e. how is it that things become what they become. Underlying the focus is Simondon's ontology – i.e. his fundamental philosophical assumptions or position. Simondon's thought never commences with the object, the subject, the system, or the organization as its first principle or as an already constituted assumption. The thought begins with the co- or

joint genesis of the subject and object, the individual and organization. The goal is to "follow being in its genesis and to accomplish the genesis of thought at the same time as one accomplishes the genesis of the object of thought" (IGPB : 20). This is process thinking focused on entities in relation. Genesis is concentrated here on three individuations: (i) the subject and object and their environment, (ii) the thinker and her/his setting, and (iii) thought and its context.

The claim is that to understand the individual --- whether technical, alive or social, one must return to the pre-individual from which it arose. What were the affects and events from which individuation emerged? But individuation is not only a result but always a process; the subject is in a "theater of individuation" (ILFI :27). The subject carries a pre-individual charge or potential to which s/he returns to individuate differently and thereby influence her/his context --- to what degree this can be voluntary or not is a major issue (Barthélémy, 2014: 66-78). Groups in society share a common pre-individuality; shared individuation is thus trans-individual. Individuation is always at once physical, affective and collective.

Simondon has consistently applied his genetic approach to thought itself. On the human scale, he claims that the evolution of thought has occurred starting from the magical, moving on to the technic and religious, further to the aesthetic, and on to the scientific and ethical. Reflexive thinking, which would be the next phase in the genesis, however, could never reach a point of equilibrium, wherein the whole system comes into balance, even if science and ethics do reach a high level of development; because the previous phases continue to exist and the complexity cannot be overmastered.

For Simondon, the technical object can be approached in different modes, with each mode corresponding to an evolutionary phase. From a genetic point of view, the phases are to be understood as chronological stages of development. In particular, the initial magical thinking has developed in two separate phases: technical and religious. After sufficient development, balance between these two phases was restored, and unity achieved within aesthetic thought. But aesthetic thought in turn developed into the phases of

the scientific and ethical, which cannot find unity and balance until the development of a reflexive and philosophical phase is achieved, but that is yet to come. One has to note that development of a new phase does not erase the previous ones. To understand the technical object today, one needs a form of systems thinking that incorporates all of the past phases. For example, a technical object can be a work of art, if it enjoins the human capacity for vital aesthetic experiencing. Such an object, inserts a point of wonder or fascination into the world. Art arises when science, ethics, mysticism and ritual, are cross-linked (re-)constructing a new unity. But this aesthetic unity is partial and circumstantial and not universal or totalizing.

Reflexive thinking needs to embrace all of the phases in their constitutive force, inclusive of the technical (refers not to specific techniques, but to what unites them into 'technical units'), religious, political and social, and cultural. Reflexive thinking has to be self-reflexive and not realistic or nominalist. It cannot be built up of concepts or ideas, or a product of mere contemplation. Reflexive thinking has to remain a becoming. Simondon refers here to Bergson's knowledge by intuition; that is, thought that intuits future modes of relationship between man and the world. This is an intuition that incorporates technical knowledge and culture, and captures them both in their genesis, individuation, and future.

By thinking individuation, the thinker individuates her/his thought and her-/himself; opening up a range of epistemological possibilities. The researcher is not a pre-constituted individual, who simply observes and analyzes. The researcher is affected by doubt, wonder, curiosity and a will-to-discover; and the researcher, as well as her/his object of research, co-evolves to become other than what they were. Research, inspired by Simondon, will not just defend an idea or make a discovery; it will expose its genesis --- of assumptions, implications and results. Studies that take Simondon's concepts and merely apply them to organization, or produce a 'realism' with no room for the human, cannot (in Simondon's sense) be reflexive. He calls for insights that think the encounter of man with the world, as they attempt to embrace all previous phases. But to demand of a study of a singular organizational

situation, that ethics and politics are integrated in a reflexivity capable of thinking the entirety of technical ensembles and religion, poses enormous challenges for the researcher.

Simondon's texts often turn back on themselves to (re-)re-examine how to proceed --- i.e. displaying the genesis of his own thinking (see Scott, 2014). Identity of thought and of self is fragile in Simondon. In his writing he has explored the former, but insufficiently the latter. For Simondon, knowledge cannot be totally constituted to be for- and in-itself. Knowledge individuates and transforms by taking its cues from the possibilities of the pre-individual: "All philosophical activity, by reason of the reflexivity of thought, is also a reform of the mode of knowledge, and has repercussion for a theory of knowledge" (MEOT, quoted by: Scott). Logically enough, when Deleuze, Stiegler, Morin or Latour have appropriated ideas from Simondon, they have re-individuated those ideas, each in their own way. When one uses Simondon to study organization, to be consistent, one would have to re-individuate the ideas and oneself. Just borrowing a few terms or concepts is not really to make use of Simondon's thought and method.

But is any such self-deconstructing epistemology, wherein the researched and the researcher are in permanent limbo, either realizable or desirable? Certainly the radical examination of relatedness displayed in Simondon's analyses of technics have made a major contribution to our understanding of man and technology, and perhaps alienation, work and labor. But radical autogenesis posits a first cause that is in principal ungraspable, as it is always in motion and ever *potential*, and never (fully) realized. But the reifications of much research deserve to be criticized. Simondon's critique of psychology and sociology cut wood --- indeed neither has a stable object of study unless one assumes the pre-existence of the psyche and/or of society. Indeed psychology's and sociology's most important categories are merely asserted and never justified or properly problematized. Furthermore, anthropology's right to exist can be decried (as Simondon does) because it assumes "Man" as its subject matter, repressing person / circumstance generativity.

Turning to Simondon's best known 'disciple', we see that Stiegler sees technology indeed as human artifact produced in complex relatedness. But Stiegler uses Simondon's concept of technics to anthropologically examine contemporary consumer society, which Stiegler argues is dominated by marketing and unable to politically or pedagogically sustain itself. Stiegler is a Freudian-Marxist who mixes depth psychology and economic analysis in his social-anthropology arguing that the consumerist society is repressive, manipulative and out-of-control of the humanist will. Stiegler's sense of genesis is rather immediate; he analyzes contemporary hyper-capitalism in terms of relationships between the generations, the interaction of political leaders to society, and how popular culture (mis-)forms identity. There is no pre-individual *potentia* involved. Stiegler interprets subject/object relatedness, or radical non-dualism, in terms of the *pharmakon*. Agency creates and destroys, frees and imprisons, all at once. In this, one can see something of Simondon's attack on the categorical polarity of psyche and society; but the dualism is not a matter of conceptual confusion but of the ever-shifting poles to social agency. Crucially there is no (pre-individual) transcendental potential in Stiegler.

In his critique of unexamined assumptions and unwarranted dualism in social science Simondon never asks the extremely relevant question: "Why do the social sciences operate in this manner?". The problem is that all "Why?" questions cannot be addressed within Simondon's thought. The first cause of radical (auto-)genesis does not allow for such questioning. Simondon's thought is all process and empty of content. Content is merely what gets co-individuated and is the product of transduction, and that's it.

In fact, Simondon has a sort of anthropology of his own. It works along a striated differentiation of physical>biological>social. He uses this three tiered or aggregation leveled model to examine how genesis passes from level to level. But where do the levels come from? They are never justified in the thought. Simondon just assumes that his research should examine movement from level to level; but what if there really are no such levels and form is a gradual continuum. And how could we know if there were levels or not?

Simondon cannot account for the truth conditions of his own positions or statements. Likewise Simondon's description of human history with a culture of magic followed by a polarization of technics and religion, historically reunited in aesthetics, but later re-divided into science versus ethics, is neither conceptually or empirically grounded. Simondon has not even attempted a genealogy in defense of this systemization.

Clearly, when Simondon turns to technology/technics his thought does bear fruit. But this is because he has here an object. From an organization studies perspective, the problem is that he philosophically does everything he can to not have an object and to propose a pure philosophy of autopoiesis. But what is it that self-develops? Is it the individual, the person, the subject, the group, the culture, the society – and what are these? Are they quasi-empty abstract categories or empirical objects, or both? If they are merely categories Simondon has fallen into the same trap as he accuses everyone else of; he has assumed what he claims to investigate and his thought is merely a stating of so many conceptual assumptions. If he is really trying to establish radical process thinking of the genesis of becoming, what is this concretely a process of? When he studies technics he has steam locomotives, crystals and automobiles to examine; but when he tries to define a method --- i.e. to undertake philosophical reflection on the (social) sciences; his object (both researcher and researched) breaks down.

Simondon's radical genetic study of technics succeeds. Seeing technology occur as a self-developing process renews STS in a powerful way. And one could assert that Simondon here does here what Latour claims to do but did not do; and in parallel, claim that Simondon was really the creative thinker behind the flat ontology (for instance of seeing machines as actants) of technics. For Latour technical objects are political actants inside social systems. While Simondon sees them as processes of self-creation and definition. Latour gives agency to objects, an unnecessary and time wasting exercise in Simondon's terms. Is it not much more elegant to ask how technologies become, than to have to justify that they have to be understood as political actors?

Likewise Simondon has an important message for third generation cybernetics and social complexity theory. Complexity theory has looked at organizations as emergent processes of events, but not critically analyzed self-producing processes of genesis (Letiche et al. 2011). Social complexity indeed has accepted that psyche and society exist and looked to the operation of genesis within those boundaries. But if with Simondon you remove those assumptions, and ask how does organization self-create without assuming psyche and society, one is forced to look for their genesis of self-creating dynamics, communication, reflexivity, rules and processes. Then the oft called for turn to 'organizing' can gain the content it has lacked (Chia, 1996).

But the radical study of social or organizational genesis poses enormous political/ethical problems. If organizational individuation is relational and emergent and we can describe its success as 'coherence' (i.e. as a positive experience) does that mean that it is a good thing? The emergent can be ethically very evil (a gang is coherent but its racist murders are not to be condoned). What if the auto-creation is evil? And how does one define the criteria of judgment? Having rejected "Man" as a category or concept, Simondon has no recourse to humanism. Likewise, he rejects Christianity or monotheistic transcendence as an absolute. Nor does he want to ground himself in linguistic constructivism; Simondon is amazingly insensitive to all considerations of language as co-existence or co-creation. He seems to identify epistemological investigation (such as Derrida's deconstruction or Lacan's psychoanalysis) with the worst rigidities of structuralism. According to Simondon, structuralism freezes its categories and invests excessive trust in systems and systemization. It represses transduction rather than understanding it.

Simondon was an important critic of cybernetics (Mills, 2016). He rejected the Shannon-Wiener model of transmitter-message-receiver because the concept of 'information' (the middle term) was entirely empty. The cybernetic feedback loop may explore context or the informational environment ---- as noise or static, but it is not adequately reflexive. The making of ideas, machines or knowledge has an effect on the maker and the made, on the environment and

on others, on the society and on one's (sub-)group. Cybernetics was right to explore feedback but it did not (initially) go far enough. Simondon sees his transduction as much more radically understanding co-causality and inter-relatedness.

But Gilbert Hottois (2004) may be right; Simondon's 'individuation' and 'pre-individual' may just be mere poetic-mysticism. Individuation according to Simondon comes from or emerges from the pre-individual; but what does the pre-individual emerge from --- i.e. is it genesis (or turtles) all the way down? We can call the genesis of the person or group 'individuation' --- and we can say that the person or group can be identified with their *potentia*. But what are the potentials and how do we define them? Can *potentia* ever really be known and if so how? Is it a potential for power, exploitation, creativity? Why wouldn't individuation merely produce more of the same? Seeing the pre-individual as an inherent source of creativity and aliveness is to assume (a Spinoza-ist) transcendent. But a Spinoza-ist life-force might provide energy but the energy might not lead to human flourishing. Spinoza posited a transcendental force that makes life more possible, powerful, expressive and active. But in Simondon the pre-individual is neither identified with a transcendental absolute (God) nor with an existential will. Simondon splits affect from emotion. Affect refers to how everything alive responds along the interior / exterior membrane. Affect relates to the interior that in some sense 'knows' its environment --- i.e. reacts intentionally to what is an exterior. This is a quality inherent to the vital. Simondon seems to degrade Spinoza's life-force to the level of the vital. And the life-force certainly is not identified with consciousness. The affective is pre-conscious --- i.e. it is close to the life-force and the pre-individual; emotions are more social artifacts of the group; more an effect than a cause.

In Simondon's perspective, can mankind through insight, self-reflexivity and knowledge, increasingly take possession of fate and gain control over destiny? Is the pre-individual ours to influence, change or to make use of as we will? In his staged evolution of thought, reflexive thinking is still to come. The paradox of Simondon is that he damns passivity --- i.e. mere 'labor' with no will or individual intentionality is a curse; but he provides us with no means

to choose to choose, or to be able to make a difference that makes a difference. Who we are and what we will be emerges from the pre-individual whereby the pre-individual is the metaphysics of existence and existence has nothing to do, to choose, or to become.

Conclusion

Simondon offers organizational studies wide possibilities of thinking anew technics, radical innovation, change, individuation, communication, labor, managing, the researcher's position, etc. Considering the pre-organizational could challenge many managerial and leadership approaches. However, what if we claim that Simondon's greatest value is his contribution to anthropology? After all, the study of human activity and its complexities and forms is his theme. Simondon defined anthropology as reified and absolutist (his action) and then attacked it for that (his creation). From an organizational studies perspective, we can regret that with the exception of technology, Simondon never did any empirical or descriptive work. He based his theory of self and society on Nietzsche's description of the tight-rope walker's fall and Zarathustra's reaction. The reflection is all about acceptance, respect and the sensationalist indifference, as well as the lack of ethics of the masses or group. But how does this theme really fit-in with Simondon? Nietzschean individualism does not seem directly congruent with the rest of Simondon's thought. Nietzsche is of course a radical thinker of becoming, wherein transcendent ethical assurances are voided. But Simondon never differentiated as Nietzsche did between those who remain open to life and existence, and in active contact with their pre-individual potential; and those who do not.

In the case of technology, Simondon demonstrates that asking about the genesis of the object offers an alternative approach to reflection and study. This is more a significant methodological contribution to (social-)anthropology, than to philosophy. And it is an insight with powerful consequences for organizational studies. In the articles that follow the authors explore a variety of aspects of the uses of Simondon. Their work is exemplary for the possible applications of Simondon as they are currently under development:

- Alexander Styhre's «Ravaisson, Simondon, and the constitution of routine action: Organization routines as habit and individuation» examines the philosophical import of habit. To do so, Styhre compares two lesser-known French thinkers Ravaisson and Simondon, in whose thought habit is a generative process. Because, in the contemporary practice-based understanding of organization, creating, mastering and maintaining work habitudes and common usages, plays a major role in what organizing is all about, its philosophical import is crucial. Habit, of course, can be understood as stultifying, repressive and even anti-life. But inspired by the philosophical traditions of Ravaisson and Simondon, Styhre argues that 'becoming-human' or 'organizational autogenesis' entails form adopting processes, which Simondon understands as 'transduction'. Individuation towards 'prescribed scripted action' is not by definition destructively domineering, but rather forms a possibility of processual relatedness and development.
- Andrea Bardin and Giovanni Carrozzini, in « Organising invention through technical mentality; Simondon's challenge to the 'civilization of productivity' », reflects on the humanist politics of Simondon's 'technicity'. For Simondon, technology is not a dehumanizing imposition of reified routines; but an interactive process of activity. Technology creation is human inventiveness occurring in world <> humanity interrelatedness. When 'productivity' is understood as inhuman; its origins and relatedness are being forgotten. Humanist 'technicity' respects the relational genesis of society and technique, invention and action.
- Pablo Rodriguez & Javier Blanco in «Organization and Information in Simondon's Theory of Individuation» explore, in a critical dialogue with cybernetics and A. Turing, Simondon's conception of information and its links with organization. For Simondon, information is an action, a shape-taking process and a genesis; it is an amplification that can be transductive, modulating, or organizing. Information organizes unresolved incompatibilities of a system; be it a machine, an animal, or a social entity. Organizations are psychic-collective and transindividual, with a key role for technologies, which need to be considered as "technical *ensembles*."
- For Rémi Jardat, in his article « Strategy matrixes as technical objects: Using the Simondonian concepts of concretization, milieu, allagmatic principles and transindividuality in a strategic management context », the phrase "management tool" is not a metaphor but an analogy. Drawing on an examination of the evolution of strategy matrixes in France after the Second World War, he demonstrates a process of individuation/concretization similar to that of the technical objects

analyzed by Simondon. Jardat proposes a description that does not pertain to social constructivism – as B. Massumi (2012) has pointed out a response to Simondon's thought. Jardat highlights the transindividual sphere cognitively linking people that reflect on and individuate the management tool.

- Michael Pedersen and Anders Raastrup Kristensen in, "I wish I could work in my spare time' Simondon and the individuation of work-life balance," have examined individuation in a concrete example. Work-life balance is their theme; but in a Simondon-ian mode such individuations become fluid, temporary and unstable. When is one 'working' (when one fills in forms in the office, when driving around, when one changes diapers, when one answers one's mobile phone) and when is it 'life' (when one innovates, when one is intimate, in the middle of a fierce debate, when one day-dreams)? 'Work' and 'life' are metastable individuations. There is no fixed 'form' or 'content' but a continual process of relationships. Work-life balance literature has assumed 'hylomorphism' as if 'work' was a form and 'life' was a content; but as Simondon shows us individuation is far more dynamic, relational and complex than that. Our 'identity technologies' are varied, multiple and radically relational.

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