

## Technical Culture and the Limits of Interaction: A Note on Simondon

by Alberto Toscano

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Freedom in this sphere [the realm of natural necessity] can consist only in this, that socialized man, the associated producers, govern the human metabolism with nature in a rational way, bringing it under their own collective control instead of being dominated by it as a blind power; accomplishing it with the least expenditure of energy and in conditions most worthy and appropriate for their human nature.

- Karl Marx, *Capital*, Vol. 3

The community accepts the painter or the poet but refuses invention, because there is in invention something that goes beyond the community and institutes a transindividual relation, going from individual to individual without passing through the communitarian integration guaranteed by a collective mythology.

- Gilbert Simondon, *L'individuation psychique et collective*

“He treats objects like women, man!”

- *The Big Lebowski*

If we wanted to summarize the motivating insight behind Gilbert Simondon's protean effort at a thorough reform and emendation of ontological and technological thought, we could say it lies in the idea that the basic sin of modern culture is to treat relations between relations as relations between things. In the 1950s, the period when he composed the bulk of his oeuvre, Simondon responded to what he judged to be a profound civilizational crisis – a misfit or lag between material and technical possibilities, on the one hand, and embedded mentalities and dispositions, on the other – by proposing a relational theory of becoming, or *ontogenesis*, that would lay the groundwork for surpassing this disjunction, together with what he perceived as the phobic pessimism of critiques of technology. This endeavor, in which ethics and theory were inextricably entangled, entailed both a critical incorporation of the cybernetic dream of a unified science and an excavation of the founding ontological prescriptions of Western thought.

Simondon's conviction was that no thinking that was in thrall to constituted individuals, and blind to the processes and operations that brought them into existence – blind to *individuation*, in short – could cope with the challenges of a technological society. The *bête noire* of Simondon's approach was hylemorphism, the schema which envisages the constitution of individuals through the imposition of a form on a passive matter – a mode of thought that Simondon discerned in contemporary Gestalt psychology, for example. Hylemorphism promotes the primacy of constituted individuals (which it shares with its rival and counterpart, atomism, as well as with the Platonic theory of archetypal forms) by prefiguring the individuality of beings in the identity of the forms that provide these individuals not just with their existence, but with their intelligibility. Without dismissing the (relative) existence of forms and matters, Simondon argued that hylemorphism forecloses the delicate, complex and risk-laden interactions between forms (e.g. the mold for a brick) and matters (e.g. the clay), and moreover cloaks the fact that forms themselves are always qualified by certain material properties (they are materialized forms: a cement mold, for instance) and that matters, inversely, are always to some extent or another preformed (they are formed matters: only certain types of clay are disposed to being molded into bricks).

Importantly, Simondon lay partial responsibility for what Muriel Combes has aptly dubbed a “forgetting of operation” at the feet of the social organization of work. It is the invisibility of labor, and

of what Marx called the “hidden abode of production,” together with the separation between intellectual and manual labor, which perpetuates the fiction of an immaculate and identical form imposed on a passive, blank material. When the atelier or factory is a black box, the passage from the form qua input to the individuated being as output remains unthought. As Simondon writes in *L’individuation à la lumière des notions de forme et d’information* (the original dissertation, recently published, from which his 1964 *L’individuation et sa genèse physico-biologique* and 1989 *L’individuation psychique et collective* were extracted), when “the one who thinks is not the one who works, in his thinking there is in effect only one form for all the objects in the same collection: form is generic not logically or physically but socially.” For the worker instead, one brick differs from another on account of its material, but especially of the “unique character of the unfolding of the operation of molding,” “the worker’s gestures are never the same,” and “fatigue, the global state of perception and representation intervene in this particular operation, and amount to a unique existence of a particular form of each act of fabrication, which translates into the reality of the object: singularity, the principle of individuation, would then lie in information” (Simondon, 2005, pp. 57–8; see also Sohn Rethel, 1978 and Thomson, 1955, on the role of the division of intellectual and manual labor at the origins of Western philosophy).

This attention to information as a singular process of interaction also explains why Simondon, who was strongly influenced by the cybernetic ideal of an omni-comprehensive science or “axiomatics” of information (Guchet, 2005), could not accept the reduction of information to a measurable quantity that would be merely contained (and already individuated) within a coded message. For, at its worst, the notion of a science of information synthesizes the three main principles of individuation that come under Simondon’s sustained attack: as a unit-measure which atomistically composes organization and quantifies degrees of order, it mimics atomism; as an expression of the unilateral relation between model and copy, it reinstates the Platonic archetype; finally, as a source of organization which is separate from matter, or “substrate-independent,” it is the latest heir to Aristotelian hylemorphism. Now, within his overall project of fashioning a general science of operations, or “allagmatics” (Simondon, 2005, pp. 559–56), bringing to the fore the “dark zone” where individuation take place, Simondon is obliged to abandon any ontology that would ground the emergence of individuality in the pre-existence of individuated terms – whether these be matter and form or sender and receiver. The process of in-formation is instead recast in terms of a model of innovative diffusion or contagion, which Simondon defines as “transduction.”

Persuaded that individuation, in whatever domain, can only take place by drawing on a preindividual field, a “metastable” domain composed of disparate virtualities (what the excerpt included herein calls a “ground”, *fond*), Simondon, drawing on studies of crystallization, rethinks the process of individuation as the result of the introduction of a “form” in the guise of a structural “germ” which catalyzes the actualization and reciprocal interaction of some of the virtualities that had hitherto remained at the preindividual level. What the philosophical tradition identifies as form is thus not thought of as a sudden imposition, but rather as the amplifying propagation of a structure, where a structured or individuated region of being serves as a principle of individuation, the model or form for other yet-unstructured and metastable regions (such that the distinction between individuating and individuated is always relative). Transduction is thus a “physical, biological, mental and social operation whereby an activity progressively propagates itself within a domain” (Simondon, 2005, p. 32), and “*the notion of form must be replaced by that of information*, which presupposes the existence of a system in a metastable state of equilibrium which can individuate itself: information, unlike form, is never a single term, but the signification that emerges from a disparation” (p. 35).

This last term is particularly important for an understanding of Simondon’s philosophy of interaction. Drawing on the physiological term for the integration of non-superimposable retinal images into unified visual perception, Simondon uses the idea of “disparation” to think how individuation implies the emergence or invention of a form of communication between hitherto incommensurable orders or potentials. As Deleuze noted in his 1966 review of Simondon, “what essentially defines a metastable system is the existence of a ‘disparation,’ the existence of at least two different dimensions, two disparate levels of reality, between which there is not yet any interactive communication” (Deleuze, 2004, p. 87). Veritable interaction is thus thought of as an *event*, wherein individuation and communication are indissociable.

It is around the possibility of a continued and creative interaction, understood as the renewed solution of the *problem* of disparation, of an intensive and dynamic difference, that Simondon distinguishes individuation from individualization. Both living beings and technical beings are caught up in individualizing processes inasmuch as they never fully exhaust the metastable potentials of which they represent a partial resolution. Indeed, as the excerpt from *Du mode d’existence des objets techniques* clarifies, the recurrent causality that qualifies individual autonomy depends on the coupling

with an associated milieu (or an “unconscious” psychic ground) from which the form of the individual draws its vitality. Moreover, both living beings and technical objects, because of their inescapably “problematic” nature and openness onto a “milieu,” are conceived of as involving a necessarily “collective” dimension – whether we are thinking of the formation of technical ensembles or the existence of transindividual processes that compensate for the limits of psychic individuation. Individualization thus takes place at the interface between preindividual and supraindividual (or collective) dimensions of being. As Combes notes, “the transindividual appears as what unifies not the individual and society, but a relation *internal to the individual* (what defines his psychism) and a relation *external to the individual* (what defines the collective): the transindividual unity of these two relations is thus a relation of relations” (Combes, 1999, p. 47).

Simondon’s philosophy can thus be defined as a relational one, which resonates with contemporary “interactionism” (see Toscano, 2005, Ch. 5). More specifically, his overall preoccupation with ontogenesis and “allagmatics” and his work on technology and “mechanology” are brought together in the ethical project of forging a “technical culture” that would guide the interaction between men and technical ensembles, on the one hand, and the “metabolism” (to use Marx’s expression) between man and nature, on the other. Simondon’s meticulous analyses of the various “modes of existence” of technical objects translate a deep ethical preoccupation, which Combes has called a “normative thinking of becoming”: the nihilistic misuse of technology is founded for him on a fetishism of utility which alienates the concrete individuality of technical objects, and thereby alienates men themselves. In the midst of the Cold War, Simondon’s technical ethics of invention is designed as a way to bypass the conjunction of productivism and antagonism, as well as the critique of technology qua instrumental rationality. But how are we to move beyond (class) war and (meaningless) work? And can we find in the very genesis of technical objects the resources to generate a new ethics of interaction beyond the tripartite separation of man, nature and technics?

In *Du mode ...*, Simondon is adamant that only a certain use of technics can properly configure the metabolic interaction between man and nature, inasmuch as the technical object is “a stable mix of the human and the natural, it contains something human and something natural; it gives its human content a structure similar to that of natural objects, and allows the insertion in the world of causes and natural effects of this human reality. [...] A convertibility of the human into the natural and the natural into the human is instituted through the technical schematism” (Simondon, 1989, p. 245). The technical schematism is explicitly aimed at replacing work in this metabolic function. Whereas the discussion of brickmaking in *L’individuation à la lumière des notions de forme et d’information* suggests the existence of a foreclosed knowledge in manual labor as “in-formation,” *Du mode ...* depicts work itself as the principal culprit of the crisis that a technical culture needs to remedy. It is only in the absence of technical objects that man needs to work and, as a “bearer of tools,” must himself accomplish a mediation between the species and nature. The prosthetic invention of a human-natural technical object frees man from the servile and dehumanizing predicament of having to “coincide with a reality that is not human” (p. 242).

This is why Simondon argues that there is a “pre-capitalist alienation which is essential to work qua work” (p. 248). This alienation does not just take place at the individual level: the “social community of work,” as an “interindividual relation,” is itself alienating according to Simondon because it only takes place among beings who are individuated as “somato-psychic men,” that is, reduced to their labors. The true transindividual collectivity develops instead when “human beings communicate through their inventions” (p. 247). The paradox here is that technical thinking is superior to work as a field of communication and a ground of collectivity because “human nature” – “what remains original and anterior even to constituted humanity within man himself” (p. 248) – is carried and communicated better by technical objects than it is by the face-to-face social interactions of laboring men and women. But this transindividual form of collectivity, whereby men communicate with one another, with nature, and with what is in them more than themselves (pre-individual “human nature”) is instrumentalized under the conditions of modern productivism, which is dominated by what Simondon calls “the morality of output.” An authentic, nonalienated form of social interaction would thus demand the integration of technical thought and social life, beyond work. As Simondon declares: “It would be necessary to discover a social and economic mode in which the user of the technical object is not only the owner of this machine, but also the man who chooses and maintains it” (p. 252). But what is this mode, which in 1958 could be found in neither Washington nor Moscow? And what might it mean for an attempt to rethink interaction today?

The first point to note is that Simondon’s is a deeply normative, even moral understanding of the interactions between men and technical objects (or machines), and a fortiori between men and men (with technical objects as intercessors and bearers of preindividual “human nature”). In this regard the vagueness and eclecticism of the contemporary ideology of interaction is harshly curbed by an ethics of

invention and use, such as Simondon's, which constantly subordinates the whims of men to the integrity, concreteness and individuality of technical objects. Consider his denunciation of the custom-designed car, for instance: "The type of relationships that exist between these inessential aspects and the proper nature of the technical type is negative: the more the car must respond the important demands of the user, the more its essential characters are burdened by an external servitude; the chassis is weighed down with accessories, the forms no longer correspond to the structure that allow for the best air-flow. The *made-to-measure* character is not only inessential, it goes against the very essence of the technical object, it is like a dead weight imposed from the outside" (pp. 24–5). The ethical use of technical objects, which, albeit indirectly, is also an ethics of our transindividual interaction with other humans, thus depends on a respect for the concrete and engendered individuality of the object, and on a kind of asceticism vis-à-vis the superficial desires of men.

In this respect, a thinly-veiled contempt for the fripperies of consumption can be registered throughout Simondon's writings on technics. But in light of the critical attention, ever since the 1970s at least, to the reproductive and symbolic work of consumption, as well as to the emergence of exploited and servile forms of immaterial labour that no longer easily fall under the paradigm of fabrication-as-alienation proposed by Simondon, is it possible to base the dream of an alternative "technical culture" on a transindividual collectivity of inventors, interacting through technical objects just as technical objects and machines communicate with each other via men (Simondon, 1989, p. 12)? One of Simondon's gambits is that we can only terminate our alienation by terminating the servile alienation of machines themselves (a condition which is symptomatically signalled by our Asimovian nightmares of robot revolts) if we surpass the separation between work and invention (or between manual and intellectual labour). As Marcuse aptly put it in his commentary on Simondon, in this scenario we would be required to "translate values into technical tasks – materialise values" (Marcuse, 1964).

But this depends on thinking that – to the degree that "work and capital lag behind the technical individual [which] does not belong to the same period as the work that activates it and the capital that frames it" (Simondon, 1989, p. 119) – it is by building collectivity and interaction from the fulcrum of invention that an instrumental, anti-technical culture can be surpassed and the antagonism between capital and labour circumvented. It is here that contemporary work on "cognitive capitalism" (Vercellone 2006) cannot but cast some doubt on the dichotomy of work and invention as the all-purpose key to the emergence of a nonalienated technical culture. Is it really enough that the genesis and existence of the technical object not be sundered for us to speak of nonalienation, and of interactions that would communicate and actualize our preindividual "human nature"?

Simondon tells us that technical activity differs from mere alienating labor to the extent that it "involves not only the utilization of the machine, but also a certain coefficient of attention to technical functioning, maintenance, regulation, betterment of the machine, which prolongs the activity of invention and construction" (Simondon, 1989, p. 250). This description snugly fits high-tech work, which is increasingly prevalent but which does not seem to have thereby vaulted over the "frame" of capital or the limits put on interaction by a society where waged labor remains an ineluctable predicament for most. Alienated inventors abound. Moreover, in the domain of programming, for instance (where certain forms of hacking and open source may be viewed as Simondonian "transindividual collectives"), the criteria for neatly distinguishing the essence of technical objects from the ornamental trinkets imposed by the dictatorship of the user might not be altogether transparent. Despite the enlivening vistas opened up by Simondon's passionate forays into the interstices of technical genesis and invention, perhaps treating objects like people – respecting their essential individuality, integrity and autonomy – is still not a sufficient basis for the political emancipation of people, or of objects.

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