Between Technical Culture and Revolution in Action

In the context of what it is mistakenly called Simondon's anthropology in designating the part of his philosophy dealing with the collective, the emphasis generally falls more on the evocation of "technical culture" than on the concept of transindividual. This notion of "technical culture," developed especially in *Du mode d'existence des objets techniques* but which returns in the chapters added to *L'individuation psychique et collective*, has greatly contributed to Simondon's reputation as a "thinker of technics." Yet, the systematic foregrounding of this technological image of the philosophy of individuation goes hand in hand with a remarkable silence concerning the "naturalist"[1] side of the theory of the constitution of the collective. Indeed, we can see here *two incompatible tendencies of thought*, two lines leading in such divergent directions that engaging in the one would necessarily amount to betraying the other. But if there is in Simondon's thought a tension resistant to any resolution, if it indeed develops in irreconcilable directions, then we must begin by *situating* its ambiguity.

Toward a "Technical Culture"

The point of departure for *Du mode d'existence des objets techniques* is a crisis, a conflict between culture and technology, born of a misunderstanding of technology on the part of a culture considering technology as a "foreign reality" (*MEOT*, 9) and rejecting it in these terms. "Technical culture" thus gives a name to a manner of thinking that will bear the burden of resolving this conflict, and from the outset, Simondon tells us that only a philosophical manner of thinking can take on the task of rendering culture and technics compatible.

From the opening lines, rather than a "thinker of technics," Simondon appears as a thinker of the resolution of a crisis of humanity in its relation to the world of technics. The reasons for such a crisis seem to reside in the

secular opposition between, on the one hand, the world of culture as a world of *meaning*, and on the other, the world of technics considered exclusively from the angle of *utility*. This is why the first sentence of *Du mode d'existence des objets techniques* declares that technical objects are depositories of *sense* or *meaning*,[2] thus attacking the pillar that supports the edifice of discord, and taking on the resonance of a manifesto.

How will philosophy take up the task of revealing such meaning? As is always the case with Simondon, philosophy will remain a philosophy of individuation, an ontogenesis. But what can it mean to think the genesis of technics? Here, as elsewhere, he does not speak of technics in general, but of technical objects, of a multitude of beings resulting from a range of technical operations. The initial aim, then, is to provoke an "awareness of the modes of existence of technical objects" (*MEOT*, 9), that is, to focus not only on their usage, not only on the utilitarian intention that we may project onto them, but also to focus on their genesis. Therein lies the task of a technology seeking to know the functioning schemas of technical objects, not as fixed schemas but as schemas necessarily engaged in temporal evolution. In effect, technical being is invented (which distinguishes it from living being), and yet, precisely because it is invented by living being capable of self-conditioning, technical being is endowed with relative autonomy. This is why, although the *fabricational intention* deposited in the technical object must not be confused with the *utilitarian intention* that is essentially exterior to it, we cannot explain the mode of being of a technical object in terms of the fabricational intention that gave rise to it. Insofar as any technical individual is a system of elements organized to function together and characterized by its tendency toward concretization, we must distance ourselves from human intentionality and enter into the concrescence of technical systems in order to understand the mode of existence of technical objects. With Simondon, we might take up Heidegger's expression (while inverting it) and say that the essence of the technical is truly technical. It does not dwell in a rationality overseeing it, or in a regime of utility it would merely embody. Rather, it consists in this tendency toward ever more concrete solidarity of elements assembled into systems that function, which tendency is autonomous in relation to the act of invention: invention gives birth to a "technical essence" (*MEOT*, 43), that is, to a being that, as soon as it comes into existence, tends to become simplified, and in doing so, engenders a genetic *phylum*, a lineage of ever more concrete technical individuals. An invented technical object cannot attain concreteness all at once, and the ancestor of a technological lineage is necessarily more abstract than the technical individuals coming

after it in the same lineage. This is also why the technical object, insofar as it is a system, is not reducible to the scientific system of causal interactions that are applied to it, and always "there subsists a certain difference between the technical schema for the object (which bears the representation of a human finality [which finality requires for its materialization a series of individuals in the same lineage]) and the scientific mapping of the phenomena for which it is the seat (which mapping entails schemas of efficient, mutual, or recurrent causality)" (*MEOT*, 36). As a function of such a tendency of the technical object toward concretization, "even if sciences were not to advance for a certain period of time, the progress of the technical object toward specificity would continue to be carried out" (*MEOT*, 27).

Right at the end of the first of three parts, *Du mode d'existence des objets techniques* arrives at a crucial reformulation of the nature of the crisis of humanity in its relationship to technology, which was put forward quite simply at the beginning. Focusing on the genesis of technical individuals, this part of the work ultimately shows evidence that, from the moment the machine is invented, technical individuality no longer resides in humans, who had until then assumed the role of tool bearers. Inverting the received wisdom to the effect that the machine has "taken the place of man," Simondon explains that it would be more precise to say, "humans have so long played the role of technical individual that, once the machine becomes a technical object, the machine then appears to be human and to take the place of humans, when, on the contrary, it is in fact humans who had provisionally replaced the machine in the period before true technical individuals could be constituted" (*MEOT*, 81). The recent crisis, which takes technics, and more precisely the mechanization of labor processes, to be the source of drama, would thus be due to a misunderstanding of the displacement of the tool-bearing function from human to machine, and as a corollary, a misunderstanding of the liberatory potential such a displacement may possess. Indeed, such a mutation turns out to have positive meaning, if we stop simply applying to technical reality a schema totally foreign to it, which aims to shore up hierarchical distinction between the care brought to the elements of the machine (maintenance, repair, etc.) and the care of organizing ensembles of machines.

This is what Simondon lays out in the second part of the work, in which he brings to light the demand for equality implied by technics in the era of machines. It is a matter of equality between humans belonging to the same technical collective (to which I will return), but first, and more fundamentally, it is matter of equality between humans and machines, which

for humans consists in "existing at the same level as machines" (*MEOT*, 125). Existing at the same level as machines affords a possible definition of the "technical life" Simondon attributes to humans insofar as humans are capable of "assuming the relation between the living being that they are, and the machine that they fabricate" (*MEOT*, 125). Because machines know only givens and schemas of causality, it falls back on humans to establish correlations between machines. Although it may appear rather obvious (who would imagine that machines are capable of spontaneously connecting with one another?), this idea takes on new depth in Simondon's version of it. It is as living beings that humans are declared responsible for technical beings, that is, insofar as they are inscribed in time, and as a result, have the capacity to act retroactively on their life conditions by modifying the forms of problems to be resolved. We should recall that it is, in fact, in temporal terms that Simondon explains the capacity to invent, which in his view characterizes living being as a theater of individuation: invention, as the act of a living being "bearing its associated milieu with it," is described as "an influence of the future on the present, the virtual on the actual" (*MEOT*, 58). Thus we might say that the human plays the role of transducer between machines; humans "assure the function of the present, maintaining the correlation, because their life is made of the rhythm of machines surrounding them, which they link together" (*MEOT*, 126). This concern for the correlation of technical beings in relation to one another is what must lead humans to distance themselves from simple consideration of the utility of technical beings, making them "witness of machines . . . responsible for their relation" (*MEOT*, 145). But even if understanding technology well, that is, carefully considering technical objects from the point of view of their mode of being, can contribute to revealing the possibility of a harmonious becoming of humans and technics, nonetheless there are risks coextensive with technology, which Simondon sees actualized in the work of Norbert Wiener: that of the reduction of society to a machine of a particular type. The danger of technicism rears its head, reducing any crisis—even social crises—to a problem of regulation, and presenting as the only ideal, homeostasis, that is, stable equilibrium of attendant forces.

Simondon does not see any other way to avoid technological reductionism but to study, beyond technical *objects*, "the *technicity* of these objects as mode of relation between human and world," which mode must be known "in its relation to other modes of being in the human world" (*MEOT*, 152; emphasis added). The last part of the work is entirely consecrated to this study of technicity, which is the key to understanding what Simondon

truly means by "technical culture," which is also where the paradox of normative thinking of becoming starts to appear.

Becoming at the Risk of Teleology

The last part of *Du mode d'existence des objets techniques* assigns to culture the task of bringing together diverse human modes of being in the world that have been progressively sundered. From the time of the division of the world of primitive magic into technics on the one hand and religion on the other, human being in the world has been ceaselessly divided between representational modes (typified by theories and dogmas) and active modes (typified by practices and norms) without truly arriving at a reunification. More than ever, according to Simondon, the cultural function of convergence now falls to philosophy: indeed, what is philosophy for the thinker of individuation, if not genealogy, that is, thinking through genesis, description of becoming? There is no better way of thinking through the unraveling of human modes of being in the world than by carefully retracing the actual process of their separation. It is the task of philosophy to genetically "trace back to" to a moment prior to the rupture of religion and technics into separate entities, even before the rupture between theory and practice. But philosophy is not merely the mode of thought capable of understanding the individuation of human modes of being; and, insofar as it is a mode of thought, philosophy participates in such individuation, taking part in such becoming. Philosophy is, in Simondon's view, the only "force of convergence" for becoming in the long run, and only philosophy can operate this convergence by speaking it: doing it. In other words, "philosophical thought would have the task of taking up becoming once again, that is, of slowing it down in order to *deepen its sense* and to render it more fruitful" (*MEOT*, 213; emphasis added).

Throughout his exposition on the "cultural" role of philosophy, we cannot help but be struck by a recurrent assertion highlighting the existence of a "sense to becoming."[3] And Simondon takes particular care to distinguish his position from finalism[4] and to define becoming as "the operation of a system possessing potentials in reality" (*MEOT*, 155), and these potentials "push" future states into being. In this part of Simondon's study, becoming that entails phases comes to be understood as becoming that is finalized and split into moments. Thus we learn that the "inherence of technicity in technical objects is *provisional*; it constitutes only a *moment* of genetic becoming" (*MEOT*, 157; emphasis added). Is it to bring this all-too-obvious gap back into relation with an immanent philosophy of becoming

that the notion of phase is defined nearly immediately after as an "aspect resulting from a doubling of being," in addition to specifying that we must not understand phases in the sense of one "temporal moment replacing another" (*MEOT*, 159)? Everything happens exactly as if Simondon's thinking on becoming were developing, almost on its own, effects that, if pushed to the limit, appear to contradict certain postulates of the study, in particular the antifinalist postulates, which refuse to think becoming as a whole inscribed in time. To avoid finalism, Simondon takes a number of precautions: he takes great care to distinguish the notions of adaptation and equilibrium, which he rejects, from notions of evolution and invention. Thus it is up to humans not to adapt to an environment but rather to invent new structures, to discover "new forms and forces capable of making it evolve" (*MEOT*, 156). But does such a proposition not simply substitute static finalism with evolutionary, dynamic finalism? Such "evolutionism" does not seem to take us far enough from the finalist schema of thought that places ends on becoming.

There is no doubt that, in Simondon's view, becoming is not and cannot be on the order of a simple predetermined actualization of virtualities by means of an end fixed in advance. The direction it takes is definitely not fixed by an end external to it, and the expression "sense of becoming" signifies nothing other than the fact that becoming *in itself* bears meaning or sense. All the work of genealogy lies precisely in reckoning with such sense, bringing it to light and entering into it in order to deepen it; but claiming to transform it would be in vain. This is why simple "theoretical consciousness of [technical] processes" could not be true technical culture; this culture must go to the point of bringing forth the "normative value contained in them" (*MEOT*, 220). Simondon evokes at numerous junctures the necessity for discovering the "values implied in technical realities" (*MEOT*, 149), or "the inherence [in technicity] of values going beyond utility" (*MEOT*, 222). And, we must repeat, the critique of understanding technics in terms of "implementation" is among the most salient ideas of the work. But in order to arrive at an adequate understanding of technics and its constitutive role in human being in the world, is it really necessary to subordinate the genealogical point of view to a normative point of view? Could we not avoid this hypostasis of a "sense of becoming" wherein normativity culminates in the notion of "error against becoming" (*MEOT*, 231)?

The reason for this orientation of Simondon's thinking of becoming seems to me to lie in the regulationist postulate that *Du mode d'existence des objets techniques* takes as its point of departure, casting the elaboration of

technical culture as the overall horizon for inquiry. To inscribe speculation within the limits of the notion of culture, with culture in effect defined by its dimension of regulation, of mediation between diverse groups of a society, is to postulate from the outset the resorbable character of any crisis or any conflict that may appear in the course of the inquiry. We are looking, then, for something on the order of a criterion of regulation, or more precisely, for a philosophy that focuses more on values than on norms, a horizon of regulation. Such a goal seems attained with the discovery of "normative value" contained in technical objects. And it is only if culture entails representation adequate to technical realities that it acquires "regulatory normativity" (*MEOT*, 227) in the relation between human to itself and to the world. When all is said and done, it is technics and technics alone, considered from the point of view of its genesis, that contains an intrinsic normativity capable of regulating the social itself, and the role of culture is to make humans recognize this virtual normativity in order for it to become effective.[5]

This normalizing bias to the philosophy of becoming is sufficiently explicit that one may well feel tempted to draw from it a general image of Simondon's thinking. It is not insignificant that Gilbert Hottois, author of the first monograph on Simondon aiming to provide a general introduction to his philosophy, entitled his work *Simondon et la philosophie de la "culture technique"* (Simondon and the philosophy of technical culture). Hottois gears his reading toward the symbolic, ecumenical dimension of Simondon's philosophy to such an extent that he ends up understanding relation exclusively in terms of "rebinding,"[6] that is, as a reality having symbolic efficacy (on the plane of *logos*)—even though Simondon endows it with reality on the order of *physis*.[7] Because Hottois's reading places so much stress on "technical culture," it provides an example in action of the danger of a normative understanding of becoming. There is no doubt that, in declaring that Simondon's ethics can be summarized in terms of "having-to-become,"[8] and claiming that its essence lies in including "having-to-be" within being-in-becoming, Hottois goes well beyond what is actually written in Simondon's text; yet, at the same time, he reveals a certain tendency within Simondon's thought. In other words, we might say that, while Simondon has renewed the thinking of being by substituting being-in-becoming (being that is only its becoming) for being understood as substance, he has not totally rid his philosophy of a substantialist conception of ethics in the form of having-to-be; he has simply displaced having-to-be onto having-to-become. Indeed, when we strive to render the norm immanent, we run the risk of effectively normalizing immanence.

A Physical Ethics of Amplification and Transfer

Attention has often fallen on an obvious tension in Simondon's thought between two tendencies or orientations: an ecumenical tendency that aims for the symbolic unification of the diverse, and another, which I have called naturalist, that focuses on the emergence of novelty from the preindividual. But it seems to me that nothing justifies reducing the second orientation to "mystico-poetic philosophy," as Hottois does.[9] The motivation implicit in Hottois's reading is polemic engagement with so-called philosophies of difference, yet Hottois remains content with an opposition between the unbound multitude and "rebinding," between the different and the reassembled. Consequently, his account completely shuts out what exceeds such a play of oppositions within Simondon's thinking of a more-than-individual center of being.

It is instructive in this regard to spend a bit more time on the conclusion of *L'individu et sa genèse physico-biologique*. While essentially identical with *L'individuation psychique et collective*, these concluding pages nonetheless include some significant modifications. Simondon asks if a theory of individuation can "through the intermediary of the notion of information offer an ethics" (*IG*, 242; *IL*, 330), and he poses this question immediately after having recalled that information is, in his view, nothing other than the internal resonance of a system in the process of individuating, the power radiating between one domain of individuation and another (*IG*, 240–241; *IL*, 328–329). The very terms of the question lead the author to a definition of ethics wherein ethics does not reside in fixed norms but in values that are "the preindividual of norms" (*IG*, 244, n. 14; *IL*, 332, n. 14), that is, in the capacity of norms to mutate under the pressure of becoming, or even more, "the capacity for an amplifying transfer contained in the system of norms" (*IG*, 243; *IL*, 331). Throughout this passage, this notion of "amplifying transfer," which defines value in terms of a sense of relativity immanent to norms, also comes to characterize the ethical subject. The notions of "transfer" and "amplification" appear in six of the seven notes added by Simondon to this version of the conclusion, as well as in all of the corrections that he makes to the main text;[10] coming so close to the end of the text, these modifications as a whole seem intended as an insistent reminder of the physical character of the ethics stemming from the theory of individuation. In these pages, in effect, we can no longer distinguish between the level of sense or meaning and that of *physis*. And while ethics is said to be "sense of individuation," and there is ethics only "to the extent that there is information, that is, signification" (*IG*, 245), ethics is simultaneously

apprehended as reticular reality, the capacity to link the preindividual in many acts: "Ethical reality is indeed structured in a network, that is, acts take on resonance in relation to one another . . . within the system they form, which is becoming of being" (ibid.). Yet: "Acts are in a network to the extent that they are *taken over a natural ground*, a source of becoming through continued individuation" (*IG*, 247; *IL*, 335; emphasis added). The ethical act, then, is one that "contains in itself a power of amplification" (*IG*, 246, n. 16; *IL*, 334, n. 16), rendering it capable of entering into relation with other acts, to the extent that they may be said "to contain" preindividual. This relation "goes from one act to others in the same way that one may go from yellow-green to green and to yellow through augmentation in the amplitude of the band of frequencies," linking acts that have "lateral bands" and are said to radiate (ibid.). From this perspective, we are not surprised to learn that "the value of an act is its amplitude, its capacity for transductive spacing out" (ibid.). And insofar as preindividual, that is, the reserve of being from which everything becomes, is defined *physeos*, how could it be otherwise?

In such an ethics, the subject lives on by affirming its relative character, or more precisely, its relational character, by inscribing its acts into the network of other acts as much as it can. But this inscription is not simple integration, and relation can no longer be reduced to rebinding on the order of logos: for the power of amplification defining any ethical act exceeds the simple relation of harmony between members of a community. To act ethically, for a subject, means in effect to be affirmed as a "singular point in an open infinity of relations" (*IPC*, 254; *IL*, 506), that is, to construct a field of resonance for other acts or to prolong one's acts in a field of resonance constructed by others; it is to proceed on an enterprise of collective transformation, on the production of novelty in common, where each is transformed by carrying potential for transformation for others. This, then, is the definition of collective individuation, opening into the dimension of transindividual.

Clearly then, it is impossible to separate out what Hottois calls "rebinding" and hold it apart from this other side of Simondon's philosophy describing the preindividual dimension of being that Hottois styles as "mystico-poetic." On the contrary, if an act is all the more symbolic when it has greater power of amplification and resonates with the greatest number of other acts with which it constitutes a network, then the power of symbolic relation between acts would seem to ensue from the central preindividual zone of being, from the "ground of nature" of which Simondon speaks. In these pages, Simondon establishes that the reticular inscription of acts

alone provides the criteria for their value, and affirms the immanence of an ethics of becoming, and thus we may read them in counterpoint to the teleology of technical culture that arises when "sense of becoming" is hastily hypostatized. Indeed it would seem that what allows us to escape the universality of technological normativity is the thematization of reticularity at the heart of Simondon's thinking of technics.

Hylomorphism versus Networks

"The act is neither matter nor form" (*IG*, 246; *IL*, 334). Such a statement serves to firmly establish the difference between understanding ethics as reticular reality, which in Simondon's view is the only way adequate to the theory of individuation, versus hylomorphic conceptions that see in ethics a system of norms functioning as a priori forms imposed upon action from without. Simondon explains, "Ethical reality is indeed structured in a network, which is to say, there is resonance of acts in relation to others, not through their implicit or explicit norms, but directly within the system they form, which is becoming of being" (*IG*, 245; *IL*, 333). Reticularity, which is the condition for immediate resonance of acts within structuration of potential in common, is what takes us from a normative horizon to a horizon of amplification of action. Fidelity to the sense of becoming is here subordinated to transductive spacing out of acts in networks, where the network is not the means of the act but its milieu.

Similarly, in *Du mode d'existence des objets techniques*, the notion of reticularity allows Simondon to go beyond a simply normative point of view, but here reticularity designates networking not of acts but of techniques. While it is true that, at one level, Simondon grants intrinsic normativity to technical objects independent of any social normativity,[11] it is only by passing through the level of technical *objects* to the deeper level of *technicity* that we can grasp what normativity inherent in technics consists in (because "technical objects result from an objectification of technicity; they are produced by it, but technicity is not exhausted in objects and is not entirely contained in them either"; *MEOT*, 163). And what we discover then is not a system of technical norms but, here as well, a mode of being that exceeds each technical object taken separately, namely, reticularity. As such, while there is indeed "normative value" in technics, above and beyond technical individuals, it belongs to "the world of plurality of techniques" and consists in "technical reticulation of concrete ensembles" (*MEOT*, 220). The reticular character of the organization of techniques confers on the technical world a capacity to condition human action as such. And indeed, confronted with

a network, we have no other choice than to keep our distance, or, on the contrary, to "join up with the network, adapt to it, participate in it" (*MEOT*, 221). Although we may change tools or construct a tool ourselves, "we cannot change networks or construct a network ourselves" (ibid.). This is in fact the key point in understanding why technics cannot be understood as a simple means for action. Characterizing technicity in terms of reticularity is what allows us to make a radical break with the description of technics based on the category of means, and in sum, to break with the schema of utility, which is suited only to the tool. Here, too, reticularity (of integrated technical ensembles) is opposed to hylomorphism (of the tool). And the schema of the network, antithetical to that of hylomorphism, seems, in Simondon's view, even to constitute a weapon against it, affording a possibility for escaping the hylomorphic mode of thought and action.

At stake is nothing less than the relationship between thinking technics and thinking the collective in the work of Simondon, and so, if we aim to fully expunge this sense of normative value attributed to technicity, it is worthwhile looking closely at the thesis Bernard Stiegler develops in his ambitious work, inspired by Simondon.[12] Apparently Simondon is an important source of inspiration for Stiegler, because Stiegler closes his general introduction to the work saying, "Simondon, with his analysis of psychic and collective individuation, allows one to conceive through the concept of 'transduction,' an originary constitutivity of temporality—without Simondon adopting such a conception himself."[13] Upon establishing that his thesis is permitted but not presented clearly by Simondon, Stiegler reformulates the "originarily techno-logical constitutivity of temporality" through the idea that "technogenesis is structurally prior to sociogenesis,"[14] which Stiegler grounds in the hypothesis of continuity between *Du mode d'existence des objets techniques* and *L'individuation psychique et collective*, which continuity, for all that it is obvious, was apparently not set forth by its author. According to Stiegler, although Simondon never actually states it as such, technics occupies a constitutive place in psychic and collective individuation. Simondon's silence, however, seems to me more indicative of an intellectual choice than theoretical blindness. And despite drawing inspiration from Simondon, Stiegler's reading seems to advance an interpretation of Simondon's thought that evacuates the specificity that Simondon accords to individuation of the collective.

There is indeed in Simondon the idea of normativity to technics. But Simondon's idea distinguishes between, on the one hand, normativity contained within *technical objects* independently of social normativity, which may even become the source of new norms in a "closed community" (*IPC*,

264–265; *IL*, 513), and on the other hand, normativity of reticular organization *of the technical world* as conditioning *human action*. For his part, Stiegler hammers out the idea of univocal normativity of technics *as such*, for what he calls "socio-genesis." If the concept of socio-genesis cannot, however, be found in Simondon, it is surely because such a concept amalgamates notions that refer to different problems, notably, notions of community, society, and psychic and collective individuation. All nuance expressed in Simondon's differentiation of these notions is in Stiegler flattened into the idea of reappropriation of technical becoming by society.

Following Stiegler's hypothesis, we might conclude that "technics is invention, and invention is novelty," and everything is a matter of "adjustment" between "technical evolution" and "social tradition," even if such adjustment does not happen without "moments of resistance, since technical change, to a greater or lesser extent, disrupts the familiar reference points in which all culture consists."[15] When the thematic of *social transformation* is used to foreclose that of *cultural evolution*, all the specificity of collective individuation is eradicated. In this way, the hypothesis of an advance of technogenesis, which subordinates psychic and collective individuation to technical evolution, constrains the production of novelty to technical invention. Properly social invention seems unthinkable within the framework of such a hypothesis. Yet, as we have seen, when Simondon inquires into the reasons for transformation of societies (see, e.g., *IPC*, 63; *IL*, 549), his answer is not structural advance in technics but the existence of shares of preindividual nature associated with individuals who, because put in common upon *specific individuation of the collective*, give birth to transindividual. As such, while it is true that the problem of connecting *Du mode d'existence des object techniques* with the rest of Simondon's work, especially with *L'individuation psychique et collective*, is without a doubt one of the crucial problems posed in the context of Simondon's thought, it seems illegitimate to make technical invention the basis for all production of novelty in being, and in particular, the basis for all social transformation.

If we adopt Stiegler's perspective, we would not be able to account for what, in the human, tends to go beyond the present state, which imparts "movement to go always farther," to cite an expression of Malebranche that Simondon quite likes, by postulating the constitutive incompleteness of the human. To declare "All supplement is technics"[16] is to completely overdetermine in technological terms the powers of human being. Such a declaration follows logically from the postulate whereby mortals are said to share "an originary *default* of origin that opens like a default of community, the community of a default."[17] While he thoroughly stigmatizes

those who "do not accept that . . . humans are prosthetic beings,"[18] Stiegler does not seem to countenance the possibility that *humans share more than default* or lack. Yet such a possibility seems to me to be the lesson to draw from Simondon's hypothesis on the existence of preindividual potential associated with individuals, on their common belonging to an ontological dimension preceding them; and nothing in it forces us to conceive of preindividual as technological. If human individuals should not be conceived on the basis of fixed bioanthropological nature, I do not see why they should be conceived on the basis of original defect that we then take pains to call originary in entirely metaphysical nostalgia for foundations.

Even when philosophy strives to be antiessentialist and deconstructivist, it seems condemned to an abstract point of view on the human, at least as long as it does not see that the basis for human living is becoming—for the question is less to know what *defines* human than to know what *makes for its becoming*—that is, real preindividual potential that, because prephysical as well as prevital, cannot be conceived of as biological any more than it can be conceived as anthropological, since it is what is prehuman in humans. And so, as a function of this concept of potential, we can even try to invert Stiegler's procedure, and rather than deducing an uncertain "politics of memory"[19] from technological advance, we may ask if life itself is not always already political, if "the political is [not] already contained in life as its most valuable kernel."[20] In my view, it is such a political "kernel" within human life that Simondon brings to light when he describes psychic and collective individuation as emotion structuring itself (*IPC*, 211; *IL*, 312–313). And we would look in vain within his thought for a ground for the political existence of humans if we look anywhere but in shares of *apeiron* that are never fixed, arising within subjects in whom they insist throughout their affective life, and as a function of which any collective individuation wherein a subject is constructed begins with disindividuation.

We can now better understand Simondon's gesture of seeking to renew human action through engagement with reticularity of connected technical ensembles. In such reticularity, Simondon sees, in effect, the possibility of finally escaping the hylomorphism characterizing the phase of being in the world to which we still belong, and into which we have entered by breaking the "vital liaison between human and world" that characterized "primitive magical unity" (*MEOT*, 163). Yet, when he writes, "The powers, forces, and potentials compelling action exist in the reticular technical world as they might have existed in the primitive magical universe" (*MEOT*, 221), Simondon does not for all that qualify this primitive mode of being in the world as *already technical*. And he does not conflate preindividual

with a being-prosthetic of the human, for, owing to shares of *apeiron* associated with it, preindividual is, on the contrary, precisely what is deposited in technical beings in the course of their act of invention. Because he avoids hypostatizing technicity by making it originary for the human, Simondon tends to articulate the powers and forces of today's technical world in terms of what humans, as beings with potential, can do. And that is what leads him to see in the contemporary technical world, *as reticular reality*, the milieu offering the possibility of reconstructing a relation to the magical unity of the *analog* world, which relation was not fusion of human and world, but "reticulation of the world into privileged sites and privileged moments" such that "all the power of action of humans and all the capacity of the world to influence humans are concentrated in these sites and moments" (*MEOT*, 164). Beyond the hylomorphic scission of action that was imposed by the age of the tool, what interests Simondon is not to rediscover this magical relation to the world, which was characterized by a reciprocal influence of human and world wherein humans could "enter into a relation of friendship with it" (*MEOT*, 166), since this relation is definitively lost to us; but *through* the contemporary technical network, we might come to construct a new modality of relation, a modality of transductive relation of human to nature and transindividual relation between humans.

Toward a Revolution in Action: Transindividual against Labor

In *Du mode d'existence des objets techniques,* Simondon is trying to pave the way for a transformation of our relation to technics, which naturally leads him to an analysis of what he calls "alienation of humans in relationship to the machine" (*MEOT*, 118). The novelty of his analysis consists in noticing a "psycho-physiological" dimension to this alienation, which he sums up by saying that "the machine no longer prolongs the corporeal schema" (ibid.): humans, accustomed to playing the role of tool bearer, find themselves in a situation of disadaptation vis-à-vis the machine when machines begin assume that function. This observation leads Simondon to call for the establishment of a new relation to machines, which would no longer consist only in serving them or commanding them. Above and beyond the role as assistant to or commander of machines, "the human can be coupled with the machine as equal to equal, as a being that participates in its regulation" (*MEOT*, 119–120). We must go beyond the cultural task of "raising philosophical and notional awareness of technical reality" through an existential ordeal in which all human beings ought to take part, that of "taking on a particular position in the technical network" (*MEOT*, 228), whereby

each would have the experience, as a participant, of a series of processes in which humans and machines are inextricable.

As Simondon himself admits, the call for a transformation of our relationship to technics cannot be achieved entirely at the cultural level of representations but would imply social changes. It is especially in the conclusion of *Du mode d'existence des objets techniques* that he sets forth these indispensable changes that would summon forth an adequate understanding of technicity, and *the suppression of work* figures in the first order of changes: "Work should become technical activity" (*MEOT*, 251–252). He does not leave us in the dark about the critical and utopian correlates of this demand. As such, he lucidly criticizes the inadequacy of the organization of work within the Fordist capitalist enterprise for egalitarian aspirations of technical becoming: "The alienation of the worker results in a rupture between technical knowledge and its conditions of use. This rupture is so pronounced that, in a great number of modern factories, the role of regulating the machine is strictly separated from that of using the machine, and workers themselves are forbidden to regulate their own machine" (*MEOT*, 250). This logically leads Simondon to remark—in an offhand manner in sharp contrast with the bold "utopian" character of his observation—that we "should be able to discover a social and economic mode in which the user of the technical object would be not only the owner of the machine but also the one who chooses and maintains it" (*MEOT*, 252).

But how exactly does this passage analyzing the inadequacy of our relationship to technics bring about the formulation of properly social critique? If we judge by the scant interest in this aspect of Simondon's theory within existing readings of our so-called thinker-of-technics, there seems no direct path from the one to the other. And yet, the concluding pages are not ambiguous at all on this head.

All of the *utopian* considerations cropping up in the conclusion to the work follow directly from critical analysis of labor as the privileged site of human alienation in relationship to the machine, which has led to human alienation becoming the site for analysis of technics in general; but such an approach can easily lead to a series of misunderstandings.

For his part, Simondon sees in labor the origin of the hylomorphic schema. In his view, the hylomorphic schema "represents the transposition into philosophical thought of the technical operation drawn from labor and taken as the universal paradigm for the genesis of beings" (*MEOT*, 241). In Simondon's genealogy of modes of being in the world, this phase of human action appears when the unified magical mode splits apart and gives birth to religion and technics, and now it is a matter of the individual

impressing a "form-intention" that is of human, not natural, provenance, upon "matter to be worked" (*MEOT*, 242). As such, in labor, humans work and achieve the operation of taking on form through the intermediary of their bodies, gesture by gesture, yet remain necessarily blind to the operation of which they are nonetheless the operator: thus, in the encounter with matter on which the worker must impose form, "the worker must keep his eyes fixed on the two terms to be joined together (such is the norm of work), not on the complex internal operation through which this joining is obtained" (ibid.). It is the very essence of labor to blind the worker to what is central to the operation being carried out. Labor can thus be defined as that modality of technical operation "that *imposes form on passive and indeterminate matter*" (*IG*, 49), and in this sense it reflects the sociohistorical situation that gave birth to it: slavery. "It is essentially the operation commanded by the human and executed by the slave," explains Simondon, adding, "The active character of form, the passive character of matter, respond to conditions of transformation into a social order that assumes hierarchy" (ibid.). Thus, form is essentially a depository for the order expressed by the one who commands labor. This inspires Simondon to say some pages later in the very beautiful opening of *L'individu et sa genèse physico-biologique* that "form is neither logically nor physically generic, but socially: a single order is given for all bricks of the same type" (*IG*, 55; *IL*, 57), or for all the planks that we would like to extract from a multiplicity of different tree trunks.

The genealogy that Simondon proposes for labor as a modality determined sociohistorically by a technical operation that illegitimately sets up a "universal paradigm for the genesis of beings" (*MEOT*, 242–243) immediately extends into *radical critique* of labor, formulated in a manner equally distant from the Marxist perspective and from that of psychologists of work. For Simondon, labor is alienating in essence. We thus understand why it would be illusory to seek psychological solutions for the problems arising within labor communities: "The problems of work are problems related to alienation caused by work, . . . alienation that is essentially due to how individual being is situated within work" (*MEOT*, 249). But elsewhere, Simondon's critique does not bear only on the capitalist situation, for in his opinion, "we may define a precapitalist alienation that is essential to work as such" (*MEOT*, 248). The alienation of which Simondon speaks is thus in his view more fundamental than what he designates as "the economic aspect of alienation" (*MEOT*, 249), which he attributes to analysis in the manner of "Marxism." Indeed, this point is apparently of some importance to him, since he evokes it at many junctures throughout the work.

He develops it notably by saying that alienation "seized by Marxism as having its source in the relationship of the worker to the means of production does not arise only . . . from a relationship of ownership or of nonownership between the worker and the instruments of work" (*MEOT*, 117); alienation "appears at the moment when the worker is no longer owner of his means of production yet it does not occur only because of severing the link to ownership" (*MEOT*, 118). As such, if we demur, on the one hand, that Marxian thought, however relative such a thing may be, is absolutely not economism, then we also see, on the other hand, that, at the very moment he critiques Marx, Simondon is far closer to him than he thinks.

While it is true that Marx often relies heavily on the analyses of economists, we must recall that he consistently defines his own project in terms of "critique of the political economy," which critique aims to make apparent the mystifying character of the point of view of economists, since, under capitalism as a specific relationship of production, the economy—all that concerns the analysis of surplus-value, profit, production of wealth, and so on—becomes inseparable from politics—that is, social relationships of domination by means of which capital constrains living labor to become objectified labor within the commodity. Nonetheless, in its concern to propose global comprehension of human action and to explain the relations between humans and nature, such an analysis does not entail economism. Thus, when Marx declares that "the short-sighted behavior of humans vis-à-vis nature conditions the short-sighted behavior between them, and . . . the short-sighted behavior between them conditions in turn their short-sighted relationships with nature,"[21] he proposes an analysis of the relation of humans to nature and of their mutual relation that is resonant with Simondon's later one. In particular, this passage by Marx recalls the critique that Simondon addresses to the project of technocratic domination of nature, within which "The machine is only a means; the end is the conquest of nature, the domestication of natural forces by means of a first servitude: the machine is a slave that serves to make other slaves" (*MEOT*, 127). And, we may say that, in Simondon as well, it is because domination is first by humans over nature (as bearers of form upon matter conceived as amorphous) that it can turn into domination by humans (as owner of materials and master of forms) over humans (as laborers who reunite the two through their work, that is, through their muscular energy). It thus seems to us important to try to understand why Simondon wished to see a strictly economist point of view in Marxian analyses, while in fact he never cites from them but evokes them through signifiers such as "Marx" or "Marxism."

When he speaks of the insufficiency of economic critique of alienation, Simondon seems to want to stigmatize a mode of thought that in his view does not get to the deepest sources of alienation. As such, it would be fairer to say that Marx simply does not situate alienation in the same place that Simondon does. Whereas Simondon sees it in the inadequate relationship that humans, incapable of overcoming the dialectic of domination and submission, maintain with machines, Marx situates it at the level of relationships of production as an inextricable mixture of exploitation and domination. Between the short-sighted behavior of humans toward nature and their short-sighted behavior toward one another, Simondon posits their misunderstanding of the machine and of the equality that it requires, their inadequacy to technicity, as that which prevents any fair relationship to nature and among them; for Marx, on the other hand, what comes between the two are social relationships of production, whose inequality structures the material life of humans.

Simondon apparently needed to reduce the Marxian point of view to economism in order to formulate his hypothesis of a more general alienation than the one situated on the economic level, which hypothesis does not seek to deny the existence of economic expropriation but seeks to resituate it in the right place. Even though Simondon himself clearly shows the sociopolitical reality of domination (for instance, p. 49 of *L'individu et sa genèse physico-biologique*), it nonetheless becomes relativized through this operation of localization, taking a somewhat tenuous place in the economy of Simondon's discourse. In announcing, for instance, that "the servile condition of the worker *has contributed to obscuring* the operation whereby matter and form were forced to coincide" (*MEOT*, 242; emphasis added), Simondon suggests that the social situation of hierarchy is not essential to understanding the nature of labor, which appears to contradict the passages in *L'individu et sa genèse physico-biologique* previously cited. This seems all the more surprising because Simondon never loses sight of the fact that, especially from the time when a role auxiliary to machines was imposed upon humans, *human* takes on two senses or orientations, as manager and as worker, or rather as engineer and as laborer carrying out orders. Still, although he shows awareness that this properly social dichotomy is a function through which the "human who thinks of progress is not the same as the one who works" (*MEOT*, 116), and due to which the engineer and the user do not have the same sort of technical experience, Simondon continually returns to a denunciation of the alienation of the human *in general*, which sometimes takes the form of "back to back" dismissals of dominators and dominated in light of their equally alienated situation vis-à-vis

technicity. It is thus that bankers are said to be "as alienated in relationship to the machine as members of the new proletariat are" (*MEOT*, 118).

From this point of view, any event, and in particular any social conflict entailing an attack on technics as one of its aspects, can only appear to Simondon as a misunderstanding of the intrinsic normativity of technics, as an essentially reactionary nostalgia for the *human*-tool-bearer dispossessed of that role: "The frustration of humans starts with the machine that replaces them, with the automatic loom, with the forging presses, with the equipment of the new mills; these are the machines that the worker will shatter during riots, because they are his rivals, no longer motors but tool-bearers (*MEOT*, 115). Passing as he does in the same phrase from the human as generic subject of alienation in relationship to the machine, to the worker as specific incarnation of the misunderstanding of machines, Simondon does not attribute any specific value to the point of view of workers about machines. At no moment does he ask himself if the violent reactions of workers in their encounter with machines do not express something about their relationship to technics other than a simple blindness to becoming. With respect to movements like that of the Luddites in England (from 1811 to 1817) or that of the Canuts in Lyon around 1830, he thus adopts the position that E. P. Thompson, in his meticulous study of Luddism, presents as the most common position, which consists in seeing in it "an uncouth, spontaneous affair of illiterate handworkers, blindly resisting machinery."[22] And, in his detailed analysis of the Luddite movement that drew its name from a certain mythic General Ludd to whom the principal members of the movement—croppers, framework-knitters, and weavers—claimed allegiance, Thompson nicely shows that such a struggle did not express rejection of the introduction of technics *in general*. What the workers who smashed machines (which happened more frequently during organized nighttime raids than in the context of riots) opposed was especially "the encroachment of the factory *system*."[23] Thus Thompson underscores that, during the year 1811, in Nottingham and Yorkshire, only those frames producing piecemeal work at low prices were destroyed, as the Nottingham Review, a radical journal of the middle classes, noted at the time: "Machines, or *frames* . . . are not broken for being upon any new construction . . . but in consequence of goods being wrought upon them which are of little worth."[24] According to Thompson, the organized destruction of machines was thus more indicative of refusal of deskilling of the labor force brought about by large-scale production than refusal of machines per se. What the workers rejected was the miserable and constrained way of life being imposed on them. Certainly, the Luddites found

refuge in the customs of their trade and expressed nostalgia for a way of life about to disappear; but, as Thompson shows, they tried especially "to revive ancient rights in order to establish new precedents. At different times their demands included a legal minimum wage; the control of the 'sweating' of women or juveniles; arbitration; the engagement by the masters to find work for skilled men made redundant by machinery; the prohibition of shoddy work; the right to open trade union combination."[25] Thus, a slight shift in emphasis is enough for what looks to Simondon like blindness and misunderstanding about the true nature of machines to appear instead as clairvoyant at another level. Provided, of course, that we wish to recognize the existence of an experience of technics specific to workers, whose relationship to machines would not occur without an oppressive global system. And it is hard to understand why, even though Simondon deplores the fact that the machine is only apprehended in work as means, he never takes into account the specific experience of technics following from labor, an experience such that the worker goes into the factory not as *human* but as part of mutilated humanity.

Nevertheless, Simondon never ceases to insist that only a definitive departure from the paradigm of labor can permit humans to transform their inadequate relation to technics, to nature, and to one another. The leitmotif with which *Du mode d'existence* concludes could not be clearer in this respect: Simondon says that *the technical operation is not reducible to labor*, and thus, to be faithful to the essence of the technical operation, "labor must become technical activity" (*MEOT*, 251–252). It is only on the basis of technical activity that the relation of humans to nature and of humans to one another can be reinvented. Indeed, technical activity appears as the mode of relation to the technical object linking these two relations in new ways.

On the one hand, in effect, technical activity "reconnects humans to nature with far richer and better defined linkage than that of the specific reaction of collective labor. A convertibility of human into natural and of natural into human is established through technical schematism" (*MEOT*, 245). Thus, when the technical object is put into action in conformity with its essence—that is, not as a means, a tool, or implement, but as a functioning system inscribed within a network of machines to which it is connected—it becomes the site for a new relationship to nature, no longer a utilitarian relationship mediated by the organism of human individual, but a relationship of immediate coupling of human thought to nature.

On the other hand, Simondon claims that "technical activity . . . is the model for collective relation" (*MEOT*, 245), and relation to the technical

object can only become adequate "to the extent that it succeeds in bringing this interindividual collective reality into existence, which we call transindividual because it creates coupling between the inventive and organizational capacities of many subjects. There is relation of reciprocal causality and conditioning between the existence of distinct, nonalienated technical objects that are used in a nonalienating manner, and the constitution of such a transindividual relation" (*MEOT*, 253). Beyond the simple interindividual relation such as it exists in the labor community in particular, the technical object adequately understood and put to work can allow for the emergence of transindividual.[26] Ultimately, then, Simondon discerns the "true way to reduce alienation" (*MEOT*, 249) in "transindividual collective" as an amplifying mode of relation between humans, which is the flipside of nonservile relation to nature. As his commentators have often noted, reducing alienation means showing that technical objects are not the Other of the human, but themselves contain something of the human: the "object that comes of technical invention carries with it something of the being that produced it" (ibid.). But it is crucial to understand that what technical invention carries *is not what is specifically human in the human*; it is "this charge of nature that is conserved with individual being, and which contains potentials and virtuality" (ibid.); this is the very charge from which transindividual is constituted. Thus, in a general manner, insofar as transindividual is born from individuation in common of shares of preindividual reality associated with individuals, when there is invention, it is really a modality of transindividuality constituted through the intermediary of preindividual share deposited in the technical object: the invented technical object becomes the bearer of information for other subjects, which, through the intermediary of the object, then assembles their inventive and organizational capacities with those of the inventor.

As we have seen, that technical activity is the model of collective relation does not mean that the human would be essentially a prosthetic being; nor does it mean that there would only be collective individuation through technics: Simondon himself warns us against such a misinterpretation by specifying that technical activity "is not the only mode and the only contents of the collective, but it is of the collective, and, *in certain cases*, it is around technical activity that the collective group may be born" (*MEOT*, 245; emphasis added). In other words, even when transindividual relation between humans results from an adequate relationship to technical objects, because it conditions them in return, it can only *guarantee* such a relationship. Significantly, at the conclusion of his work on technics, Simondon insists that constitution of a transindividual mode of relation to technics is

necessary for enabling us to apprehend technical objects in light of the sedimented preindividual within them. But this only makes sense if it is true that disalienated relation to technical objects, a use of machines adequate to the power of amplification of the contemporary technical network, can be opened within transindividual collective.

In Conclusion

Constructing a fair relationship to technics, which is the difficult objective that Simondon's thought establishes for our times, definitely does not mean rediscovering an always repressed originary: what technicity can do as an amplifying network is yet to be invented. If I have here rejected the reduction of Simondon to the image of a thinker of technics, it is not in order to keep technics on the order of a means for action. It is Simondon's virtue to have seen that technics *as network* now constitutes a milieu that conditions human action. Out of that milieu, we need simply to invent new forms of fidelity to the transductive nature of beings, both living and nonliving, with new transindividual modalities for amplifying action. For, in our relation to preindividual nature, multiple strands of relation—to others, to machines, to ourselves—entwine in a loose knot or node, and that is where thought and life come once again into play.