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SIMONDON AND THE PREINDIVIDUAL

“Ethics exists to the extent that there is information, in other words, signification overcoming a disparation of the elements of being, such that what is interior is also exterior.” What Simondon elaborates here is a whole ontology, according to which Being is never One. As pre-individual, being is more than one—metastable, superposed, simultaneous with itself.

—GILLES DELEUZE, “ON GILBERT SIMONDON”

Gilbert Simondon (1924–1989) produced his key texts before the publication most of Deleuze’s philosophy writings. He began working on the problem of individuation as early as 1952,¹ a year before the publication of Deleuze’s first book, on Hume. In turning to Simondon’s conception of individuation, we are reversing the chronology followed so far in this book, in fact, we are unfolding or elaborating what is already enfolded or contracted in many of Deleuze’s writings. Along with Ruyer, he is one of the lesser known inspirations for a number of key concepts in Deleuze and Deleuze and Guattari’s writings.² He prefigures Deleuze’s writings in a number of ways, from his account of an ontogenesis of individuals, his critique of dichotomous thinking, his fascination with machines (and mechanology) to his conception of information as well as his understanding of the increasing orders of scale and complexity that mark the movements constituting material, psychic, and collective existence. He also turns to questions of ethics and aesthetics as ways of addressing the real, which he conceives as connected to and fundamental for philosophy, the thinking of the

relations of matter and life. He continues the marginalized tradition of thinking the modes of incorporeal—the ongoing challenge to the distinction between mind and body or form and matter or abstract and concrete—that I have attempted to trace through the writings of the Stoics, Spinoza, and Nietzsche, although he does so very much in his own way. Perhaps the most significant reason for Simondon's position in this book is his desire to produce an ethics that is inseparable from ontology, an ontoethics, that in some ways has the breadth of Spinoza's ethics, and the force of Nietzsche's. His work may also help to articulate more clearly the kind of ethics that lies nascent in Deleuze's writings.

Simondon aims to replace the study of ontology, of what is, with the study of ontogenesis, the various processes of self-formation that create what is. Simondon devoted his earliest writings to the pre-Socratics, for whom nature was the unquestioned source of existence and creativity.³ He was thoroughly steeped in ancient philosophy, from the writings of Plato, Aristotle, the Epicureans, and the Stoics, in many cases returning to pre-Platonic conceptions of the coexistence of life and nature, to the kind of philosophy that existed before science, poetry, the arts, and philosophy became separated. The separation and privileging of form over matter—*hylomorphism*—which began with Socrates and is accomplished by Aristotle, becomes a significant conceptual obstacle to a thoroughgoing understanding of the continuities and discontinuities, the rising and falling of order and information, that connects the human, and other forms of life, to the orders of the universe.

In this, he is more at home with the pre-Socratics (especially Anaximander),⁴ the Stoics, Spinoza, Nietzsche, and especially Bergson; but, to Bergson's distinction between matter and life, Simondon poses degrees of life, punctuated leaps in level, that link the most complex psychic and collective behavior to the most elementary processes of materiality. All of becoming becomes in the same way, not according to universal conceptual or mechanical principles, not according to rational or formal plans which preexist them, but according to the heterogeneous logics of their individuations, and the consistencies, cohesions, and effects across disparity, difference, dispersion that they produce. This is perhaps the single most compelling reason for Deleuze's deep admiration for and

use of Simondon's work—Simondon serves as a more or less contemporary interlocutor of Deleuze's and enables him to develop another language by which to speak about the events and becomings.⁵ Instead of opposition, Simondon speaks of disparation, the productive tension between two closely related but incompatible orders; instead of identity, or individuality, he speaks of individuations; instead of forces, he speaks of energetic potentials; and instead of the negative, he speaks of creation. By moving from Deleuze to his contemporaries, I explore in more depth the intimate relations between ideality and materiality as well as extend Deleuze's conception of an ethics of the event.

THE PREINDIVIDUAL

Insofar as an individual exists, there must be a process, or many, that produces it. This is Simondon's most basic axiom—to seek out the phases by which, from initial conditions, a being comes into existence, not through an identity, a preformed path, or the imposition of a preexisting form or plan on unformed matter. Such conceptions are hylomorphic: they consider matter to be passive and unformed—indeed, they are considered fundamentally feminine since at least the time of Aristotle, if not before, and form to be a masculine, active, imposing, ordering process. I have suggested elsewhere that the dichotomization of thought through presence and absence into dualistic and mutually exclusive terms—mind and body, reason and passion, self and other—may have its origins in the transformation of sexual difference into sexual opposition (the most elementary gesture of patriarchy).⁶ It is the transformation of difference that Simondon addresses. Not only is the hylomorphic schema unable to explain the coming into existence of individuals, its terms, *form* and *matter*, require that their own geneses as individuals be addressed. His challenge to hylomorphism is an analysis of the coming into existence of hylomorphism itself, the ontogenesis of philosophical models that, because of their binarized structure, have lost direct contact with the preindividual forces that are used to produce and sustain the various orders of individuations.

The concept of the preindividual is Simondon's alternative to the problem of Spinoza's substantialism. There is being, huge, magnificent, complicated, perhaps even divine, in its order, regularity, creativity, multiplicity, and logic. But the coming into being of substance still needs to be explained. Simondon's project is to articulate a theory of becoming that accounts for the complex geneses of the becoming of all beings and their different levels of operation through the concrete elaborations of the preindividual, a concept I believe is in fact very close to Spinoza's understanding of substance and the divine. His notion of the preindividual is also closely linked to Nietzsche's understanding of the universe as composed of impersonal wills to power, force fields that constitute and decompose every "thing." Simondon adds post-Einsteinian, quantum conceptions of fields, deformations, singularities to Nietzsche's conception of the will to power. Forces become more subtle, less easily identifiable, shifting terrains, with their points of intensity, dark spots, strange attractors, and vectors and gradients of differentiating forces.

The preindividual is described as "not one," lacking identity, cohesion, not less than one (and not zero) but indeterminately more than one: "it is more than unity and more than identity, capable of expressing itself as a wave and a particle, as matter or energy,"⁷ fundamentally open to contradictions, indeed the very ground of their distinction. This is because the preindividual has no individual or collective contents (only potentials for individuation), while it provides the conditions and means by which individual and collective existence comes into being. The preindividual is the center of Simondon's conception of being, but not a being comprised of identities, things, substances. It is the metastable order from which beings, or, rather, becomings, engender themselves. Being is, for him, potential rather than actual. This is the preindividual before there are identities, distinctions, and oppositions, "being" that exists purely as becoming. Such a conception is not possible in the classical age where only stability and instability, regulation or the absence of regulation can be conceived. The ancients could not conceive of an order that is neither stable nor unstable, neither being nor nothing.

Simondon uses a concept from nonequilibrium thermodynamics to describe a mode of being as *metastable*, neither in a state of equilibrium nor in a state of depletion or entropy. It retains unexhausted potentials that require the generation of a new order to explicate or develop these potentials and keep them contained and cohesive. Metastable systems are systems of becoming, dynamic systems which have both energy and information, and enable them to exchange with each other. A physical system, for example, can be understood as metastable when the slightest change in its parameters (in temperature, pressure, electrical charge, magnetic force, etc.) occurs. In such circumstances the system does not behave as it does under conditions of equilibrium but undergoes dramatic transformation. Muriel Combes, one of Simondon's most astute readers, explains: "in super-cooled water (i.e. water remaining liquid at a temperature below its freezing point), the least impurity within a structure isomorphic to that of ice plays the role of a seed for crystallization and suffices to turn the water into ice."⁸ In other words, the smallest perturbation of the metastable system generates a powerful change in the system's functioning, and enables it to "evolve." A metastable system is always more than itself, for it contains not only its present capacities but also the ongoing potential for self-transformation or mutation. Its potential energy can be tapped to the extent that it can be actualized, structured, positioned at another level. Metastable systems contain contrary potentials, potentials that are incompatible and require resolution through the creation of a structure, a form or level to express them. Becoming is not the development of being but its conditions and raw materials.⁹

The preindividual is metastable, which is to say, "the notions of order, potential energy in a system, and the notion of an increase in entropy must be used" (PPO 6). If the real can be understood as metastable, then some of its regions, as supersaturated as they can be, become potentially differentiable systems of individuation. The preindividual constitutes those dynamic sites of metastability whose energetic and informational potentials remain active and unexhausted in change.¹⁰ Much of what is real—dead planets, dead life—has lost its potential for more and becomes subject to entropy, decay. But the preindividual is capable of

bearing contrary or even contradictory aims and outcomes as different lines of individuations are created.¹¹ Reality can express itself in contrary ways. When we binarize the real—that is, understand that it is composed of a presence and its negation or absence (form as the absence of matter, matter as the absence of form, for example)—we misunderstand its ability to induce contrary explanations, fundamentally different and incompatible orders of understanding. The preindividual is an ordering, orienting dimension of the real, its *dynamis*, both, and indistinguishably, form and content, energy and information, wave and particle, conceptual and material.

The preindividual is an excess of energy and information, more than unity and more than individuality. Through the self-organizing forces of the preindividual and the intrusion of a foreign “germ,” an element that is introduced from outside to a metastable system, processes of individuation—provisional modes of resolution of tensions within the preindividual—become possible and can operate continuously without exhausting the resources of the preindividual. The preindividual is both the precondition of any individuation, and thus of any individual, but also the extra “charge” that individuation carries with it as it develops and elaborates new orders to address new kinds of problem, a resource for ongoing individuations that may occur within and between individuals. The preindividual may be understood as the indistinguishably mental/material condition for thought and things, mind and matter. It makes every individual, material or mental, living or nonliving, possible. The preindividual is neither material nor ideal but the dynamic forces, the charge of potential, that enable both to come into being and to function in increasing interrelations and orders of complexity.

If the preindividual consists in metastable systems full of energetic/informational potential, supersaturated, if it has no identity, it must be considered an order of pure difference. For Simondon, the preindividual is not the ground of an ontology but of an ontogenesis. The preindividual is more “concrete” and “complete” than the forms of identity that may emerge from it.¹² Without unity or identity, but nevertheless laden with form-matter and their various tendencies, the preindividual provides a clearer way to understand ontology as ontogenesis.

CRYSTALS

The processes of individuation have an order or direction, for they develop levels and dimensions of increasing complexity according to the phases of individuation, such that more complex individuations rely on and require lower order levels of individuation. For ontogenesis to proceed, the preindividual, which is neither localizable nor temporal but the condition under which we may come to understand space, place and time, must, through its energetic potentials begin a process of “dephasing”: “becoming is a dimension of being corresponding to a capacity to fall out of phase with itself, that is, to resolve itself by dephasing itself” (PPO 6). The preindividual, or one “region/moment” of it, through the various tensions it generates, that is, its metastability, creates a (provisional) resolution of these tensions through a division into phases, a falling out of step with itself, a movement of becoming something else. Becoming is the connection of phases, the dephasing and temporization that opens up the order of change and a direction for change: “Individuation corresponds to the appearance of phases in being that are phases of being” (PPO 6). In the processes of dephasing, the preindividual generates, through a “germ,” two orders of magnitude, two modes of energy/information, between which a new process mediates and whose tensions it resolves in some way. There is always a doubling in becoming, a division of the preindividual into two orders between which an individual may be formed. The plant in its relations to its world, its exterior, enfolds energies from both cosmological and terrestrial orders. These contractile capacities provide it with solar energy, water, and minerals it requires to sustain its own growth—the plant, in Bergson’s terms, reaches as far as the sun which it contracts in its organic functions. It is also an internal order of growth and development, a particular pattern of life that requires and participates in its cosmic operations. The plant requires and generates two orders, one internal, related to self-organization, the other external, related to the universe, in order to live, reproduce, and flourish.

Individuation can occur only when the preindividual dephases, that is, acquires temporal and spatial consistency, becomes a specific milieu

against and through which individuation may be distinguished. There is no individuation without an individuating milieu, a local or associated milieu created in the process that separates an individual-to-be from its particular environment. Each order of individuation entails a new order of milieu and a new reserve of the preindividual. Individuation, at all levels, requires a process of differentiation of milieu and individual, a differentiation that is itself successively transformed through the emergence and development of an individual. Individuations never cease to be reimmersed in preindividual forces that make them possible and that accompany their development and a milieu which always accompanies them in a manner that sustains them.

Simondon is not so much proposing a history of individuations—history requires already individuated beings—as a conceptual understanding of the processes which bring individuals into being through becomings that are themselves not individuated, that take into account historical changes but focus on what changes and how it changes rather than its contemporary setting. Individuated beings can acquire a history and be understood historically, but the processes of individuation are, in a sense, prehistorical and pregeographical. Instead, he proposes a genealogy of individuations, a reconstructive account of how individuals of all kinds and orders of complexity, physical, biological, technical, psychic, collective, and transindividual, bring themselves into being on the basis of the types of order between which they engage and the milieus from which they draw their particularities.

Simondon uses a series of striking examples to describe the (self-) genesis of individuals of different kinds and complexity. He begins with the most simple, the creation of a brick, used since the ancient Greeks as an example of the form-matter dichotomy. A brick, it is assumed within hylomorphic schemas, is composed of two different elements, formless clay and a forming mold. The clay is considered passive relative to the forming effects of the mold, which imposes, from the outside, a form for the brick, one that is in principle infinitely repeatable. This model is the basis for (or perhaps is based on) an understanding, clear in Aristotle's work, of human and animal conception: the semen functions as form giving and menstrual blood—raw material for the newborn—is matter

that requires form. Simondon considers such a model “abstract”: it takes no account of the actual qualities that both “form” and “matter” require. Such a model must ignore the careful preparation of both the clay and the mold. Each is indistinguishably already form and matter. In making such a relation between the mold and the clay abstract, we do not understand how each is prepared for their mutual yet nonreciprocal use.¹³ That is, the microphysical order of clay must align with the macrophysical forces of the mold for there to be a brick that will stand up as enformed matter, as informational matter and the materials are themselves not raw, for each is already worked on, prepared for its task.¹⁴ Brickmaking or sculpture—another favorite image of hylomorphism—is a very particular bringing together of two orders, that of the mold with its tensile force and that of the clay with its mobile consistency—so that mold can more directly influence the nature of the brick than the brick does the mold. Although their relations are mutual, they are not reciprocal. The mold introduces a manner of organization into the clay’s transformation into a brick. Both mold and clay are already well-worked integrations of enformed matter in the process of transformation.

The brick is among the simplest of technical objects, but a hylomorphic understanding necessarily ignores the processes of production of both mold and clay, which each have their own consistency and strength through their interaction. The “two half-chains,” as he calls them—the chains that link the production of the mold to the preparation of the clay—are ignored. Clay is reformed according to its own self-forming capacities; the mold is put to use through its reparation, according to its own particular qualities and characteristics. Simondon suggests that more complex individuations occur, in the same manner as the complex half-chains that constitute the formation of the brick, through an iterative transformation, although at a higher level, with materials provided through earlier individuations. If the brick represents the simplest form of individuation, Simondon claims that the individuation of crystals, a far more complex alignment of forms and materials, functions according to the same principles. Crystals are among the most dynamic and seemingly alive products of inorganic nature, the inorganic at the point of its closest meeting with the organic. Simondon understands the

crystal as a “limit-case,” occupying the border between the inorganic and the organic (*IGPB* 223), and he retains a fascination with such limit cases insofar as they reveal more clearly the becomings that make possible a leap in order or complexity.

The crystal provides Simondon with a kind of paradigm of individuation, one whose features intensify with the growing complexity of different orders of individuations, physical and biological. In many ways, the brick and other simple technical objects are less complex (though not in all ways—at the subatomic level there is immense complexity) than the requirements and conditions necessary for the creation of crystals, which can now also be created artificially or technically with some ease. The individuation of a crystal elaborates an order that is not at work in the creation of a brick. A brick is produced by the introduction of two externally connected forms of matter—a preprepared mold and already worked on clay. A crystal is a process of self-creation, which begins to elaborate a distinction, or a permeable difference, between an interiority and an exteriority, a distinction or border between two sites unfolded from one, capitalizing on the bifurcation that emerges between energy and information. A crystal can grow from a very small seed, an intrusion or irritant, placed within a saturated aqueous solution. The seed grows in all directions in the solution as each layer of the crystal-in-creation provides a base for the next layer as it forms on top. The aqueous solution contains within itself the potential for processes of crystallization, which are only triggered and aligned layer by layer with amplifying reticulation through the intrusion of the seeding element and can in principle continue until all the potentials of the solution are fully crystallized, that is, individuated. The seed-germ is the eruption of a point of singularity within the solution that transforms the solution, a system of metastability, into a point of disparation. The crystal is a “resolution” of the disparation of the system, the point of individuation that produces a provisional unification of the disparate, an individual. The seed introduces a catalyzing element, an informational or organizational tension: it begins to reorganize the liquid in which it is located through its informational forces so they align, become parallel, adhere molecule by molecule to the emerging form while continuously relying on the unspent forces

of the solution. The seed does not give form to the solution: rather the seed and the solution, each “agents” with their own forces, must create a mode of resolution of these energetic differentials. The crystal is their invention; a radiating, iterative order is produced that “grows” slowly as far as it can from its initial point of immersion in the liquid. The “problem” is at the level of the mother-liquid and its differential tensions.¹⁵ The seed introduces a way for the problem to be “formulated,” and its genesis devises a possible “solution,” the growth of a particular crystal with its characteristic shapes, according to the materials it resolves. This seed does not need to grow all at once. It can be reimmersed in the solution to add growth at a later time. This is because of its reticulating structure and because what growth the crystal undergoes always occurs from its topmost layer. The disrupting energy/information of the seed in the solution causes it to restructure.

The liquid solution is a preindividual system whose energetic and informational forces become organized around a point of singularity, the seed, that has been introduced from outside. The disparate forces and energies that enable crystallization involve a reorganization that can align the metastable order of the liquid and the catalytic qualities of the intrusive seed. These two kinds of forces and informational and energetic orders require a mode of encounter that enables each to transform and separate itself while relying on an accompanying or associated milieu. The crystal is a local solution to the instabilities of the preindividual liquid, one that does not exhaust the liquid’s potentialities but that orients them in a particular direction. This is the very heart of invention, not human or conscious invention, but the invention of solutions through local instabilities, regions of excess that resolve their energetic and informational forces through the creation of an individual.

The coming-into-being of the crystal is an individuation that occurs, as it were, at the threshold between material and biological individuations. This is why it serves so emblematically in Simondon’s writings. The individuation of higher order individuals—biological individuals, psychic individuals or thoughts, human and technical collectives, the transindividual—all follow closely the formal movements, the movements

of transduction and disparation, from a preindividual order (an order of larger scale or different forces in the case of different types of individuation) of the ontogenesis of the crystal. Transduction entails that there are no entities, no terms, no orders of complexity in advance of the relations that are set up between systems and their intruding seeds. It is the “logic” of the forward temporality of creation, a mode of approximation or intuition of a potential result, a knowledgeable guess of an invention, addressing the processes of reconfiguration and restructuring of the stabilities and instabilities of indeterminate systems as they bring forth or give birth to individuations.¹⁶ Transduction can be considered the converse of the dialectic—it analyzes not what must be overcome, negated, and left behind as the detritus of history, as do Hegelian and Marxist dialectical models, but what returns, transforms itself without an unusable residue, and that, if it leaves a remainder, leaves it as dynamic and full of potential, an inexhaustible if changing virtuality. This world is not governed by scarcity and lack, but by an abundance of potential, the endless possibility for becoming, and becoming-more, for continual replenishment and transformation through these inexhaustible potentials.

Disparation is another concept that Simondon uses frequently. He derives it from optics. Each eye sees a slightly disparate visual image, an image that is separated in perspective by a few centimetres, the distance between each eye. When we blink, leaving one eye open, then the other, the image we see with each eye is slightly different. When we look with both eyes open, the two images naturally merge into a single, three-dimensional image that appears the same in both eyes. The slight differences in the image, through resolving themselves in disparation, enable us to see even more acutely with binocular vision, which invents a resolution to the disparity in image. As Simondon says, “a given information is never relative to a unique and homogeneous reality, but to two different orders that are in a state of *disparation*; information, whether it be at the level of the tropistic unity or at the level of the transindividual is never available as a form that could be given; it is the tension between two disparate realities, it is *the signification that will emerge when an operation of individuation will discover the dimension according to which two disparate realities may become a system*” (PPO 9–10). Disparation is

difference that may find a higher-order existence not in a future unity but as a future impetus that requires a continual invention of modes of mediation, continuing transductions, inventions, and becomings.

BIOLOGICAL LIFE

The ontogenesis of physical individuals, like that of the brick or the crystal, provides a basis for reconsidering the prevailing models of form and matter, ideality and materiality, and informational and energetic transfers between disparate orders. They provide us with a new way of conceptualizing higher order, more complex ontogeneses, those that constitute living beings and their increasingly complex relations. Simondon's model of a preindividual order, which is as yet without individuality but which, through the intervention or operation of a disparate seed or interruption, can produce emergent individuations that resolve some of the tensions, seems to work as well at the level of organic life as it does with inorganic existence. It is only if physical individuations generate a certain complexity in the individuals they produce that biological and psychic emergence becomes possible. The preindividual is the resource not only for the order of physical being, but for all becomings, all orders of individuation, and all kinds of individuals.¹⁷ Simondon proposes the most profound decentering of identity, hierarchy, and binarization, the terms by which every thing thus far has been understood. He claims that such a model is more concrete than the abstractions that signify an entity is identical to itself, fully self-contained.

If there is an ontogenetic leap in complexity—Simondon calls it a hiatus—between the inorganic and even the simplest organic forms—this is because life reorients physical principles and the chemical flows on which it relies to establish a distinction between a milieu of interiority and a milieu of exteriority. This exists in primitive form even in the production of the crystal, for each crystal molecule becomes the interior on which the next molecule lays itself. But this interiority is only apparent or, rather, is only a phase in the crystal's self-formation.

What distinguishes the crystal from the most elementary forms of life is the distinction between a space or milieu of interiority (that space produced by the most simple membrane or boundary) and a space or milieu outside. Life grows from its interior, unlike the crystal which can only grow from its edges.

Simondon differentiates life from nonlife in at least three primary ways. First, a living being's individuality is never finished or finalized, as a crystal may be. A life coincides with a permanent process of individuation, while the physical individual may be generated through a single quantum leap, structured by a single encounter between two incompatible orders of information and energy.¹⁸ Second, individuations of living beings proceed from an internal resonance and not only through the disparation between internal and external milieus. This is why the crystal, or the physical individual, grows only at its extremities, at the points of surface contact with the outside. A living being, by contrast, grows through the integration of external milieu elements into its internal organization. Life has an internal resonance which requires a permanent engagement with its external milieu: "Within the living itself, there is a more complete regime of *internal resonance*, one that requires permanent communication and that maintains a metastability that is a condition of life. . . . The living is also the being that is the result of an initial individuation and that amplifies this individuation—an activity not undertaken by the technical object" (PPO 7). And third, not only do living individuations become from within themselves, in a manner of permanent individuations, they transform their environments, but above all their own individuating interiority. The inner consistency of a living being is a movement of continuous growth and change from within that coordinates with and transforms features of its external milieu, and thereby addresses problems: a living individual is not only a being that can modify its environment, but also "by modifying itself, by inventing new internal structures and by completely introducing itself to the axiomatic of vital problems. *The living individual is a system of individuation, an individuating system and a system individuating itself: internal resonance and the translation of the relation to itself into information are in this system of the living*" (PPO 7).

In other words, life modifies itself, where the physical individual is modified by its milieu; life exists within itself and not only at the borders of its engagement with its milieu; and life elaborates itself through the ways in which its engagements with its milieu reconstitute or reframe its internal resonances. Life exchanges energy and information in the same manner as material individuals, but from a different level or dimension and directed to different problems and different orders of information and communication. Life builds on and accommodates physical individuations that become part of every biological process—blood circulation, nutrition, growth, muscular contractions and movement, the coordinated operation of organs, if there are organs—but in addition, it generates new orders of spatiality (no longer Euclidean) and new orders of chronology or ontogenesis, the term that replaces it:

The bodies of organic chemistry do not carry with them a topology different from that of physical relations and habitual energies. However, the topological condition is perhaps primordial in the living being *qua* living. The space of the living being is perhaps not a Euclidean space: the living being can be considered in a Euclidean space, where it is defined as a body among others; even the structure of the living being can be described in Euclidean terms. . . . The essence of the living being is perhaps a certain topological arrangement that cannot be known on the basis of physics and chemistry, which utilize in general a Euclidean space.

(IGPB 223)

The necessary condition of vital existence is the individuation of a membrane, itself polarized and oriented by the asymmetrical permeability of cells, whether anatomical or functional, which comes to distinguish two different orders while creating a disparation between them. The cell's permeability in one direction is its means of regulating the flow of information/energy in the other: "The living membrane . . . is characterized as that which separates a region of interiority from a region of exteriority: the membrane is polarized, letting pass one kind of body in a centripetal or centrifugal direction, opposing the passage of another

kind of body” (*IGPB* 223).¹⁹ The constitution of a living membrane produces a new topology, a new order of existence, and a new complexity of relations: “Life emerges as a fold in the tissue of matter and brings about a bifurcation in the transductive logic of crystalline individuation.”²⁰ Life is thus not only a different order of becoming than physical individuations but a new topological and temporal folding, a chronogenesis, as Sauvagnargues calls it, a new alignment, orientation, and dimensionality, the creation of not only an individual and its environment but also an interiority and an associated external milieu, which both partake in physical and vital individuations together, infusing a new order of information/energy into the chemical constituents of life and a new orientation to its milieu.

The membrane is usually considered to contain life, but Simondon suggests that perhaps it constitutes life: “You could say that the living substance that is on the interior of the membrane regenerates the membrane, but it is the membrane that makes the living being alive at each moment, because the membrane is selective: it maintains the milieu of interiority as a milieu of interiority in the relation to the milieu of exteriority” (*IGPB* 223–24). This is as true of the most simple unicellular organism as it is of complex living beings. The more complex a multicellular organism, the more interior milieus exist in its body, each exterior to other simultaneously internal processes and organs. The organism is thus not a simple or single interiority relative to a fixed or given exterior, but a series of orders or degrees of interiority in which what is exterior to one system (as a gland is to the flow of blood, for example) is capable of passing into another—different orders of mediation of interiority and exteriority, of an exterior temporarily integrated and then expelled from an interior, of an exterior that is the heart of the operations of an interior. In other words, the living organism is a transductive mediation of different degrees and forms of exteriority and interiority, from their absolute separation (with the evolutionary eruption of life) to their ever-mediated cooperation (in technologies). Living individuations occur topologically rather than geometrically, through the folding of organs, organic processes, and the movements of reticulated foldings that constitute the brain, leading to greater and more minute mediations of interiority and

exteriority, converting Euclidean space into topological space. This is a point of convergence in the writings of Simondon and Ruyer—the claim that in life, in consciousness in its broadest sense, there is a replacement or overlaying of geometrical with topological surfaces.

If the physical individual is produced historically but carries within itself no past other than that which formed it (“the past does not serve any purpose in its mass; it only plays the brute role of a support, it does not make available the informational signal: the successive time is not condensed”; *IGPB* 224), that is, if there no further virtuality in the inert object, the living being carries its past, all the becomings that created it, in its interiority, in the present. It is the echo of the past in the present that enables an internal resonance and the topological capacity of any interior space to be in contact with all of itself. “There is in effect no distance in topology; the entire mass of living matter which is in the interior space is actively present to the exterior world at the limit of the living being; all the products of the past individuations are present without distance and without delay.” (*IGPB* 225).

Accompanying the transformation of the Euclidean space of physical things into the topological space of lived interiority is a conversion of the physicist’s conception of time into lived chronology, a time without quantity, a time intimately inseparable from topological transformations.²¹ Life transforms the continuity of temporality, the time of physics, into forms of condensation, contraction, succession, chronologies not only of continuity but also of discontinuity and envelopment. All of the past is condensed into the present existence of forms of life, every moment of lived time is connected to all other lived moments “thus for the living substance, the fact of being on the interior of the selective polarized membrane means that this substance has taken into itself the condensed past. The fact that a substance is in the milieu of exteriority means that this substance can come forth, be proposed for assimilation, or wound, the living individual” (*IGPB* 225).

In other words, the polarized membrane that constitutes the interior of an organism contains not only the topological relations that constitute its biological cohesion but also the chronogenetic relations that enable it to negotiate its (temporal) place in its milieu. The membrane is where

“the interior past and the exterior future face one another” (*IGPB* 225). The present can be understood as a movement of metastability between interior and exterior, between the past that constitutes the interior and the future which beckons from outside, in which the past helps select those elements of the future that may assist in the regulation of its present and the provision for future actions and relations. For Simondon, the future lies on the exterior of the membrane, the past on the interior of the membrane, and the living being is a manner of regulation of the interaction of the multiple points of the past with the impending actions of the future. Life is the entwining of topological and chronogenetic transformations, cohering only to the extent that the membrane can retain the disparation of exterior and interior and can produce a self-maintaining metastability in its relations between these different orders. This is why, like the physical or chemical individual, the living individual is “both more and less than unity, carries *inner problems and can enter as an element into a problematic that is larger than its own being*. Participation, for the individual, is *the fact of being an element in a greater individuation*, via the intermediary of the charge of *preindividual reality that the individual contains*, that is, *via the potentials that the individual contains*” (PPO 8). Every individual is more than itself. This means that every individual is open to becoming more, to further orders or dimensions of self-complication. The biological individual contains the potential, a charge from the preindividual, that makes both material and ideal possible not only for bodily but also for psychic and collective existence, for a life of concepts and inventions.

PSYCHIC AND COLLECTIVE LIFE

Simondon’s concept of the emergence of psychic life from various orders of complexity of biological life elaborates the notion, shared by Spinoza and Bergson, that all “things” have a degree of consciousness, precisely the degree of consciousness linked to the complexity of the movements of the body. But, unlike his predecessors, Simondon claims

that consciousness or psychic life is a property not coextensive with all materiality, but only with the forces of the preindividual from which all forms of identity and becoming are drawn and with particular configurations and orders of materiality, for example, those kinds of material organization that are required to address problems of interiority through perception and affect, the two integral dimensions of psychic life. These two orientations, one directed outward, the other inward, require a new operation and reorganization of biological being to intervene into and regulate its access, through successive individuations, to ever greater elements of preindividual potential.²² The psychic emerges as a way of addressing problems of living—problems of perceiving and acting in an exterior milieu and problems of affect and feeling in an interior milieu—while developing a mode of acting that addresses how these two different and potentially incompatible orders communicate to function more effectively as perception and affect. The psychic—differentiated thought and affect—emerges but does not separate from biological cohesions, the organizations of organs; it coexists with them, forming as part of a living interior, thinking itself, and the affective energies by which thought engages with biological and natural life. As Bergson understood, life tends to thought, to psychic elaboration. The psychic—thought, the idea, consciousness, the unconscious—emerges to address the unstable relations between the (biological and psychic) interior and the external milieu through which the living being must sustain itself.²³ The interior functions through an internal resonance that folds into the present the force of the past and the structures and forces of the (external) milieu to which it directs itself.

To the extent that the living being is differentiated from but conditioned by its milieu, it creates not one but several orders of milieu and modes of differentiation as it develops a more complex relation across the membrane that distributes life between interior and exterior milieus. Simondon suggests that, to the degree that the body is defined by its relation to an external milieu, psychic operations require not only the body's external milieu but also create an internal milieu (or several) of their own. The psychic must be grounded in its own way as a biological being is grounded in its milieu: thoughts, like the body itself,

must participate 'in a ground which gives them direction, a homeostatic unity, and which conveys informed energy from one to the other and from all to each. . . . Without the ground of thought, there would be no thinking being, but only a series of discontinuous representations without linkage. The ground is the associated mental milieu of forms. It is the middle term between life and conscious thought."²⁴ Thought is grounded, not in reason, which is to say in itself, but in the tensional relations and orientations interior to living beings between affect and perception. Thought emerges through disparation, through entering the zone of a problematic and devising a higher-order solution to spread informed energy with less impact on the living being. Thought is one such solution, a solution that, while it emerges from psychic individuals, also surpasses them in its collective and transindividual impact. One of the developed orders of invention of the preindividual, thought is carried within and produced by living beings through the differentiation of an interior milieu in which it can maintain and elaborate its consistency, in which it is subject to relations with other thoughts, where it is never unconnected from a living body but capable of addressing bodies beyond their inventor.

Affect and perception, capacities or abilities of complex organisms, are the ways in which life capitalizes on the dual orientations of matter/ideality as the preindividual conditions of all things. Perception directs itself to the external milieu. Not to its forms, its images, its commonality (which must be constructed later), but by orienting the living body to a place and things located in it, as a living being in a milieu constituted of vast ensembles of objects. Located on the very rim which distinguished its inside from its outside, perception orients this rim to locate itself, to act, to invent, in its milieu. Perception enables not only the recognition of forms but above all of orientations, movements, gradients, postures—it outlines, not forms, but actions. In a Bergsonian vein, for Simondon, perception removes from the objects of perception what they are in themselves in order to accommodate life's use of them. Perception is a provisional and not always unproblematic mode of resolution for the problem of differentials between its external location and its internal needs.

Affects, internal resonances, and consistencies are never fully separable from perceptions, nor perceptions from affects, because it is through affects, which psychic beings cannot but experience, that perceptions become tinged with the interest of living beings, the living being becomes involved in the objects it perceives, a way of resolving tensions or incompatibilities within and between an interior and its exterior. A new type of living being results, one that not only organizes an interior milieu, as all vital individuations require, but structures itself in two different directions, psychic and somatic, addressing a new order of incompatibility or problem, a new complexity in which the psychic can both amplify or diminish the somatic.

For Simondon, psychic and collective life do not precede each other but mutually condition and require each other: "Psychology and the theory of the collective are therefore linked: it is ontogenesis that shows what participation in the collective and what the psychic operation that is conceived of as the resolution of a problematic area" (PPO 9). He thinks of these as two individuations that are "in reciprocal relation to one another" (*IPC* 19): the psychic individuates the interior of the living being, and the collective individuates the exterior, the two poles of living existence that continually individuate themselves, each in their own directions, though not without affecting each other. The psychic is the condition for the emergence of the collective and always accompanies collective life, and the collective opens out and complexifies psychic life. Neither the psyche nor the collective can be considered substances or things any more than chemical or physical individuations can: they are ever-elaborating processes, continually in danger from psychologism and sociologism of being reified into entities or substances. They are individuations that continue, and sustain, vital individuations. They are "individualizations," the continuing individuation of a living being, the means by which it resolves new orders of problems in its milieu, both interior and exterior, by individualizing, that is, creating a never self-identical "individual."

The perceptual side of psychic individuation connects the interior of the living being to a series of relations with its exterior milieu, generating problems that it and the sciences human subjects create through the

technical magnification of perceptual capacities elaborate; the affective/emotive side of psychic individuation, while it arises internally, and is affected by the impact of the past that also resides there, also orients us to the exterior, where we experience its impact (we do not feel anger or love “in us” but “to” something or someone). Neither perception nor affection are exterior or interior in themselves. They are modes of connection between an interior and an exterior whose relation is never purely internal or external. Perception orients us to a world by enabling us to act in it, preparing bodies for action; affection also orients us to a world by enabling us to feel it, to draw it into emotions that also bring us outside ourselves. If the interior is in touch with its exterior and the exterior with its interior, then perceptions and affects restore some of the preindividual connections that physical and vital individuations have not yet incorporated: “Each thought, each conceptual discovery, each surge of affection reprises the first individuation: thought develops as a reprise of this schema of the first individuation, of which it is a distant rebirth, partial but faithful” (*IPC* 127). The psyche is a continuously recalibrating difference of orders of disparation between interior and exterior, a mode of addressing problems, taking into its operations ever more of the open possibilities of the preindividual.

However, the tension, or orders of incompatibility, within psychic life between the never fully integrated poles of perception and affection and the ongoing yet uncontrollable relations of the nascent subject (animal as well as human—for they are different only by degrees) to its associated milieu remain problems to be resolved, and it is the function of psychic life to address these tensions and to invent ontogenetic solutions that lift it to a new level. The individualizing being is itself a problem, as it is produced from two different orders in a never fully completed or integrated process. This problem of the cohesion and agency of the subject relative to itself (and its own immanent processes) and its external milieu generates anxiety for the subject, anxiety that can both block the processes of becoming or generate inventions for overcoming blockages. As a being never identical with itself, a psychic being is a problem for itself: “the subject feels existence as a problem posed to itself, that is,

to the subject” (ILFI 244). The subject bears in itself not only its history, interiority, genealogy but also the preindividual that remains unexhausted by individuation. The subject does not coincide with itself, for something, the preindividual, remains within it that cannot be self-identical (see *IPC* 253).

The subject is unable to resolve this problem in itself: indeed, it *is* this problem. Anxiety is the consequence not only of the impossibility of fully coordinating the outside with the inside, and the impossibility of fully identifying itself as a subject, but also the impossibility of the subject as individual. It leads the subject, never fully individuated and always carrying a (changing) residue of the preindividual within and around it, to a fruitless attempt to individuate the preindividual, to identify and master its milieu, to protect itself from the random, outside intrusions of order that it cannot control. Anxiety produces a strange expansion of the individual subject, a being whose every element and experience touches the furthest reaches of the universe and that now pose for it a danger or a deranging disorder. If Simondon has been charged with mysticism, it is because the intimate relation between the psychic individual and collective existence involves something of an acknowledgment of the preindividual within a part of nature, one’s own nature, one’s place within collective existence and within external nature, of something that has no identity but potentials for the production and dissolution of all identities: “The anxious being dissolves into the universe in order to find another subjectivity; it is exchanged for the universe, submerged in its dimensions” (ILFI 256).

The anxious being is the one who is ready to shake off something of the subject it has become in order to exceed the individual limits of subjectivity. The subject expands to touch the universe and in so doing brings to a new life something of the preindividual, of nature, that it always carried with it. In opening out onto another subjectivity, in finding a place in collective existence, the individual psychic subject must contract the structures of individuality. It must renounce a certain sense of self-containment within a world of uncontrollable events—the very sense that leads to anxiety—in order to move beyond subjectivity:

“Anxiety is the renunciation of the individuated being and that being agrees to traverse the destruction of individuality in order to pass to another unknown individuation” (ILFI 257), the desire to move beyond itself, to annihilate its yearning for self-containment in exchange for a new opening to a different kind of becoming: “Anxiety already bears the presentiment of this new birth of the individuated being on the basis of the chaos, with which it is in accord; . . . but in order for this new birth to be possible, the dissolution of the previous structures and their reduction in potential must be complete, in an acquiescence to the annihilation of the individuated being” (ILFI 265).

The individuated subject is “invaded” by the preindividual: as solitary subject, it cannot evade anxiety, which can only intensify. Anxiety is an “operation with no action, a permanent emotion that is not able to resolve affectivity” (PPO 9). The solitary subject, the disaffected being, is destined to anxiety if it is cut off from an order of collective being through which it can address its anxiety and enter a new kind of relation in which it can again invent new ways of living in a world that it cannot control.²⁵ Alone or isolated, the subject as individual is left to anxiety, the insecurity of a being cut off from its milieu; but collective existence provides a “much vaster” place, or many, by which the subject can overcome itself and enter into new relations, not only with other subjects in collective social and political life but also with the preindividual, the universe it touches in the process of its traumatic, anxious dissolution and reconfiguration. Psychic individuations become events in the process of a bigger, more encompassing collective individuation, which is not simply the social mingling of psychic individuals but the order of the elevation of psychic individuals, individuals prone to anxiety, into collective beings, where new kinds and orders of individuation become possible.

Collective individuations resolve some of the tensions generated within the individual expressed in anxiety. Collective life is not cut off from the possibilities of acting; it does not simply feel itself: it acts, invents at a different order. It is able to restore connections between perception and affection that are polarized in an individualized subject. The

collective provides a number of ways in which the perceptual and the affective can be restored: it becomes the milieu in which they may come together. For an individuated being, the collective “is the mixed and stable home in which emotions are perceptual points of view, and points of view are possible emotions” (ILFI 261): it is a solution to how perception and emotion can be lived as such. Collective existence enables an individuated psychic being to go beyond itself, to produce a relative context in which to position itself, even to disindividuate itself, to generate a transindividual relation, one that is made possible only through collective existence, even as it remains a kind of excess of collective life. The collective itself is individuated, a second-order operation of the individuation of individuals, one that enables signification and language to be possible and a common existence through sharing the nondiminishing charge of nature in each individual. Individuals have relations with each other only because of a shared collective individuation, a shared charge of the potentials of the preindividual that are distributed through individuals rather than exist as such collectively.

A psychic individual may find itself at home in collective existence; but it is also capable of undergoing further transductions that give it access to even more of the preindividual—the transindividual—but only at the cost of its cohesion as an individual in the collective. As Combes puts it: “a subject cannot encounter transindividual without undergoing an ordeal, that of solitude.”²⁶ The transindividual, as the collective resolution of the tensions of the psychic individual and its responses to its own preindividual conditions through collective life, brings into existence a new order of creation that binds the very processes of individuation with a new mode of knowledge by which we can understand processes and relations beyond individuals of whatever order of complexity. The transindividual erupts, through a kind of Bergsonian leap, through ongoing individuations that carry within them all the prior individuations that made them possible. The transindividual is the preindividual in touch with its own potentials for creation and thus with the potentials for new kinds of psychic and collective life, as well as the creation of new kinds of ethics and new forms of aesthetics.

THE TRANSINDIVIDUAL

The transindividual cannot be identified with collective existence. There are many competing philosophical conceptions of collective existence, “the people,” the multitude, the community, whether joined through the social contract or through some other voluntary compact, the collectivity of men. Collective existence for Simondon represents, say, the life of a factory, a farm, a hospital, a school, small- and large-scale institutions and sites of collective production, where many people work together (happily or not) to produce things that could not have been made without social life and that, in turn, constitute the possibilities for a social existence, a life in which individuals may participate with others. Collective life solves the problem of anxiety by resolving the intrasubjective tension that marks individualized life, by bringing others into relation with the subject’s self-conception, but not without generating its own loci of tension and its own forms of overcoming. Collective existence gives individualized subjects other subjects to recognize them and to work with, through which a subject can define its social activities and capacities. To the extent that it lives a collective life, it is life that participates in, benefits from, and is limited by the lives of other humans. Simondon is not suggesting that collective life comes “after” individual life, for they remain necessarily coextensive but function at different orders of complexity.

The transindividual, which conditions the social, however, can only begin its own processes of individuation, its own collective individualizations, to the extent that the individual, the subject, identity, even collectivity are stripped from the subject and are themselves subjected to the tensional disparation through which becomings occur. The collective, the collection of individuals, an interindividual relation, is one of the ontogenetic transformations the individuated being undergoes, and it requires something different than what individuated beings bring with them to social life. So while the solitary subject finds its place in the collective, and while collective existence enables the invention of the most powerful mediators between natural and biological life through the creation of

language and various sign systems—tools, machines, and technical apparatuses; sciences, arts, philosophy—there is nevertheless a leap between the individual and the collective which makes possible the emergence of the transindividual and the rupturing of collective existence.

The transindividual occurs through the collapse of an “identity” or individuality that enters the social relation, the moment Deleuze discusses as “a life” hovering between life and death, a life of singularity without identity, when life is stripped bare of its identity but is capable of provoking the sympathy of strangers. While the transindividual may be identified in the unknown scoundrel in Charles Dickens’s novel or in *Bartleby*, Simondon seems drawn to the figure of the tightrope walker in Nietzsche’s *Thus Spoke Zarathustra*.²⁷ Zarathustra returns to the town to announce the overman to an incredulous and mocking group: “Behold, I teach you the overman: he is this lightning, he is this frenzy.” Only a tightrope walker among all the people gathered believed him, and he thus begins his tightrope performance. Zarathustra understood, as only he could, that man is himself the tightrope that must be walked over to bridge the gulf between man and the overman: “Man is a rope, tied between beast and overman—a rope over an abyss. . . . What is great in man is that he is a bridge, and not an end: what can be loved in man is that he is an overture, and a *going under*.” As the tightrope walker begins his perilous walk between two towers, a jester jumps out and over him, causing him to fall, shattered, to the ground, not yet dead, but not able to live. The tightrope walker speaks about the devil, who tripped him up. Zarathustra affirms the nonexistence of hell, the afterlife, and the devil to him:

“The man looked up suspiciously. “If you speak the truth,” he said, “I lose nothing when I lose my life. I am not much more than a beast that has been taught to dance by blows and a few meager morsels.”

“By no means,” said Zarathustra. “You have made danger your vocation; there is nothing contemptible in that. Now you perish of your vocation: for that I will bury you with my own hands.”

When Zarathustra had said this, the dying man answered no more; but he moved his hand as if he sought Zarathustra’s hand in thanks.”

(“Zarathustra’s Prologue,” Z #4–6)

Between life and death, the tightrope walker learns there is only this life, a life he is about to lose, a life he may have lived in order to live another life, but a life with no less meaning and value because it can only be lived once (and this is why this one life, no other, must be affirmed to eternity). His dangerous vocation is his will to power, his will to overcome himself, risk himself, and for this Zarathustra honors and celebrates him. This episode entranced Simondon. The tightrope walker at the point of death opens up something of the transindividual that collective existence hides. Dickens's scoundrel, Zarathustra's tightrope walker, Bartleby, at the point of their deaths, renounce something of their identity, not everything, but all the marks of personality, all capacities and distinctive qualities—all that counts in social and collective life. There must be a kind of *disindividuation*, a disassociation, for the individual to undo enough of itself to partake in the transindividual, a different kind of becoming that underlies, but sometimes also escapes, the collective and may be capable of reorienting it.

Disindividuation, the withdrawal from collective existence, is not the same as anxiety—on the contrary, it is its overcoming, its “solution” and reconfiguring at a higher level of information and energy. It is an expansion without anxiety, without the fear of being swallowed up by the preindividual carried within individuality that threatens the interior with the exterior milieu's capacity to annihilate it. This is an expansion of the preindividual reality that made individual and collective life possible but that collective existence tends to contain and limit, to regulate and habituate, and that threatens social life in collective practices and rituals. It is always a contingency—like the tightrope walker's death—an event, one that both brings together individuals in a collectivity (even if only momentarily) that enables the transindividual to erupt. The transindividual is possible only through an involuntary, disindividuating, and isolating movement, a disrupting event, in which an individuated subject is subtracted from the collectivity. The tightrope walker is overtaken by an event (an event not outside him, but beyond his control) that removes him from collective existence and, momentarily, brings to him a divine insight, an instant when he understands his place in all eternity, Spinoza's third kind of knowledge, one that can be shared.

This is Zarathustra's gift to the tightrope walker, a friendship that not only honors him with burial but above all gives to him the knowledge of the joy of his eternal return, not as anything other than what he is and has been, but through the events that have occurred to him and how he has lived up to them and become worthy of them. Zarathustra, who must live away from other humans alongside his animal companions, is his friend because, of all the villagers, only the tightrope walker heard him, believed him, and affirmed the will to power. Zarathustra sees in the tightrope walker a companion, someone who also undertakes risk, even death, for what he must do. Together only for a few moments, nevertheless they share something neither alone can accomplish, for even Zarathustra requires companions in order to create, in order to invent new thought, a new morality, new art, and a new kind of life. Together for a moment, each is subtracted from the social—Zarathustra self-consciously, the tightrope walker through an event, the fate which befalls him. Only then does the transindividual emerge, not above or through them, but through a tension between the random but significant, indeed overpowering, event that befalls an individual and the collective to which he or she belongs: that is, through the dissociation of something in the individual from the collective that subsides beyond the social roles and common linkages that contribute to the collective.

Zarathustra's solitude, and the rare moment he shares with the tightrope walker, mocked by the community, only occur away from the collective and outside its norms. Between them, a "rope" is constructed to the future: through the solitude of each, through undergoing the ordeal that the transindividual poses for the individual in the event that strips the individual of his or her subjectivity, the individual, or rather, something in the individual that exceeds identity enters a new milieu, populated not only by natural and social relations but also by incorporeals, ideas, practices that wrench the social and yield from it new work, beyond the horizon of the present. Two such beings, Zarathustra and his unnamed brief friend, in their solitude and isolation, in coming together, can produce a more-than-individual and more-than-collective relation, new thought, new art, a new relation that can create a bridge to the future. What is produced in this rare relation is a new kind of

subject, as self-produced as any individuality through disparation, a new milieu, a new closeness to and proximity with an outside, and a new exploration of the preindividual.

The transindividual subsists, as the Stoics say, in the interstices between the individual and the collective and in a rupture between immanence and transcendence²⁸: “The transindividual is not external to the individual, and yet it is detached to a certain degree from it: furthermore, this transcendence which takes root in interiority, or rather, at the limit between the exterior and the interior, does not belong to an exteriority, but to the movement which exceeds the dimension of the individual” (*IPC* 281). The transindividual returns to the preindividual “as the reality which grounds transindividuality” (*IPC* 317), and to its creative tensions, those which threaten the individuated being. It takes these tensions as the spur or challenge of engendering further and higher-order individuations, “ulterior individuations” (*IPC* 315) which can only take place *through* constituted subjects and their ordeal of detachment or isolation from the social. The transindividual—an impersonality that can exist between individuals—rejoins the force of the preindividual to generate what cannot be collectively produced (but which collective life admires, values, and requires—at least at times): art, literature, philosophy, science, inventions, creations made by individuals to have a life of their own, a collective life, that subsists and transforms collective life from within. The transindividual yields not art at its most typical, a recognizable style, to take just one example, but art at that moment when new kinds of art are produced that transform the ways in which art is understood and undertaken.

The transindividual is “something other than a superior individual, more extensive, but still as individual as that of the human being” (*IPC* 161). Simondon often speaks of the transindividual in semireligious terms (although in terms of a negative theology). But, as with Spinoza, his religious language can be understood in terms of this one world in all its complexity and not a being (or becoming) beyond it. With the transindividual, individuals, through a subtraction of much of their identity and their social existence, can touch, can raise into existence, something

of the preindividual, the forces of the real, with a new creativity that is able to invent ways to explore those forces, perhaps not so “useful” to collective life, which yet enhance and produce new forms of collective existence, higher possibilities for creation. The transindividual is what in the individual exceeds individuality and subjectivity yet subsists in the individual and the collective as “a charge of nature,” a second outflowing of and connection with the preindividual that is no longer a phase of being, but many phases, oriented in many directions.²⁹ Individuality is not undone but undergoes a new kind of becoming with its newly constituted milieu, a milieu of cultural and collective objects, technical apparatuses, art institutions, and political practices as well as the (divine) nature of the real from which it sprang.

Insofar as we may be able to survive the severing event of detachment that provides the (provisional yet ongoing) solitude necessary for the eruption of the new, we must maintain prior individuations to be able to add something to them. It is only through returning to the preindividual, from which one has never departed, that new problematics, new tensions, can be addressed in a new order of invention. The transindividual, as that which all individualizations share underneath their various forms of individuality, is what connects the collective through the work of a solitary subject—one such as Spinoza or Nietzsche, who had to withdraw from much of civic life in order to undertake a kind of philosophy capable of sweeping dominant philosophical orders aside—to the preindividual in order to expand it, to bring new forces to it, to make it reticulate new fields, new works, new philosophies. The disindividuated subject becomes less an agent of change than the disrupting germ in a new order of transductions and becomings, this time with social and collective resonance involving a kind of return to what has been left behind, a retrieval of the remainder that is either disposed of or unconsidered in any dialectical operation.

The transindividual subject—the inventor, the technician, the artist, the philosopher—subtracts him- or herself from the social through the mediation of the machine, technical apparatuses, the regimen of practices of the artist, the institutions, modes of operation, and habits of

writing—through, that is, a return to and a restructuring of the forces and orders of energy and information that render social and collective life possible. This break is fundamentally different from the anxiety of the single individual, for it is a generative and productive break; it finds a way to create a relation between disparities as anxiety does not. It enables not only a creative destabilization of the individual's capacity to invent but perhaps above all a kind of counter to the normative and collective forces of social life, a new way of being.³⁰ It may be understood as the condition under which social revolutions, epistemological ruptures, and new kinds of practices can be invented.

While Simondon focuses primarily on technical invention and the production of technical objects and ensembles, some of his claims about technical invention apply equally well to other kinds of invention. He understands technologies, from artisanal tools to complex technical objects (cars, planes), networked apparatuses (diodes and triodes, engines, machines, power production plants, computer networks), and technical ensembles (the car or aircraft factory, the scientific laboratory and so on) as modes of human (and animal) mediation of nature that still carry a part of their preindividual charge within them, thus still containing potential for “evolution” or elaboration, as do all modes of creative invention addressing disparities. In many ways, Simondon regards the technical object as paradigmatic of all human invention, particularly insofar as human creativity relies on the potentialities latent in nature in every act it undertakes, and the more complex its acts, the more they require technical mediation.

If art represents humanity's noblest achievements, Simondon makes it clear that machines too are social accomplishments that produce the lived reality of humans. The machine is no more alien to the human than its own art products. The human becomes human through the organizations of nature, technology, concepts, arts, and politics it accomplishes. The transindividual can be addressed, however, only when a disruptive event propels some individuals to construct, from the preindividual, a transindividual relation that can subtend and transform social, cultural, and political life. It is to questions of art and ethics, strangely part of Simondon's philosophical model of technology, that we will now turn.

ART, ETHICS, AND PHILOSOPHY

Simondon presents a rich understanding of the ongoing relations between living beings, particularly human beings, and the world. The world, through its preindividual forces, is the open-ended, pliable, and transformable source that cannot be used up but, in elaborating itself, makes possible individuals of various orders and complexities, individuals who carry within themselves the increasingly elaborated preceding orders of complexity. In explaining the ontogenesis of beings of all kinds through the growing transformations and orders of complexity that metastable systems make possible, where there is no moment or phase of stability or self-identity and where the capacity for transformation is unceasing, there is nevertheless a directionality, an orientation, a broad trajectory of becomings. Becomings are elaborations, developments, and changes that occur when individuated beings are subjected to the relentless forces of events, encounters, and results from the transformations they induce.

Mediation is required to restore the human to a place in the world from which it is distinguished, and this is largely provided in contrary directions, on the one hand, through technics, man's attempt to objectively organize and regulate the world, and, on the other, religion, man's attempt to subjectively address and find a meaning in the world. Our relation to the world is thus divided in two directions, one technical, the other religious, one oriented to a practical life and the other to a reflective and collective life, one projected outward and the other inward. Between technics and religion, Simondon situates both science and, more unusually but significantly, aesthetics. The ethical direction of our currently technical, religious, and aesthetic impulses are, perhaps without our clear comprehension, oriented to a new concretizing relation to the whole, the relation between man and world, restored to some of the magical cohesion that held it together in its preindividual undifferentiated force.³¹

Religion and technics are parallel and symmetrical relations between the two orders of invention generated by the primordial consistency of the preindividual. If religion organizes the relation between human

and the world through a divine narrative and meaning, technics organizes this relation through “the efficiency of action on singular sites,” the capacity to invent tactics to accomplish a goal using what is available.³² Technics and religion, the results of a primary magical division of the world, require each other and other orders of social life to complete what is left out of the magical world in its division. They are complements rather than competitors.

It is between technics and religion, as the two poles that order the division of man and world from two different directions, that Simondon understands ethics and aesthetics are positioned, for neither functions to direct the man-world relation. Each is an attempt to immerse human practices in the orders of the world, somehow more directly and with more impact than religion and technics, although by incorporating their own inventions and by addressing the gulf that separates them. Aesthetics and ethics (and, more conceptually, philosophy and the sciences) aim to restore continuities and connections that were severed through the processes of the various orders of individuation, not aiming at somehow totalizing them (this is the impossible goal of religion, which, even if it may totalize humanity as one under God, is not able to bring this about as a fact—on the contrary, it has been a greater force than any other in the production of many intractable and murderous divisions within humanity!) but at enabling them to become more, to elaborate their own becomings and key points beyond the magical order. Aesthetics aims to reconstitute the reticular universe, the universe before its magical division, the potentials of its preindividual openness through the transindividual opened up by psychical and collective existence. Aesthetics, and art production, are not “of a limited domain nor a determined species, but only of a tendency,”³³ a tendency not only of the human, but primarily of the human (180). It is a tendency that the human has toward the qualities and properties of matter, toward exploring and enhancing, using organized matter to structure its relations to the world. There is a becoming-aesthetics not only of the tool but also of the tool user and the objects on which the tool can be used.

When art is produced, when it is thought or even recognized, it returns us to something of the intensity, and chaos, of the preindividual

that is both within us and in the world, which we share with the world. Art is one mode of celebration of the capacity of the human to outstrip the collective; I would suggest that philosophy is another. By “returning” to the preindividual by means of the transindividual, a fragment of the world and of the living being come together, something collective is activated, even if by noncollective, that is, singular, means. There is no special object or form that characterizes art. Indeed, for Simondon, there is a certain art that accompanies the simplest technical objects. Art appears not before or outside technics or religion but through them and by appropriating their means of organizing the relations of figure and ground. Art relies on both technics and religion, but it is capable of amplifying each and removing them from their “proper” circuits of operation, technics directed to the order of the milieu and religion to the order of the psychic interior.

Technics has its own kind of beauty, its own economies of invention, style, and use (though Simondon himself seems to prefer a largely functional understanding of the beauty of machines: those machines which bring into their interior as many external factors as possible have a certain beauty or technical elegance in the ingenuity of their design. This marks, for example, his preference for the turbine over the combustion engine, for the triode over the diode, and for the functional car over the car designed for advertising),³⁴ just as religion relies on the mustering up and harnessing of affects of belonging, community, and universe that are also very common objects of aesthetic production. Under certain conditions of intensification, no object is immune to a kind of aestheticization, that is, to the capacity to reveal a part of the universe from which it comes. Aesthetics refers in Simondon to a process, a relation, and not an object (191). Aesthetics uses an art object to address an impression or expression of the real that the object supports or indicates, but that is part of the real. The art object is the vehicle for the transportation of qualities, elements, or forces that abide in the transindividual: “the real aesthetic impression cannot be subjugated to an object: the construction of an aesthetic object is only a necessarily vain effort for regaining a magic that has been forgotten” (192). The art object is “what prepares, develops, entertains the natural aesthetic impression” (194).

This aestheticization is the process of rendering a material organization most efficiently, a beauty not only of use but above all of organization, not only a fit between form and function—his attraction to Le Corbusier’s architecture is explicit—but a fit between present and future, the opening up of objects, qualities, and sensations elsewhere.³⁵ Any object, act, process, place, or moment can become aesthetic to the extent that it can reticulate—that is, magnify, connect, transform—a relation between a living being and the universe. Every technical object has its own sensory qualities, the sensations that are generated when it is put to use; these sensations are continuous with (and perhaps a condition for) the art work, which can extend them as qualities and give them new resonance and new life in an art work that brings together the subject and world in its own way.³⁶

Art continues with greater intensity the process of intuitive sensation that technics enables and that religion also harnesses and directs beyond this world. These are precisely sensations of qualities of this world: “moving more or less continuously to the sensations that artistic instruments give to those who play them: the touch of a piano, feeling the vibration and tension of strings of a harp, the snapping off the strings on the hurdy-gurdy on the cylinder covered with rosin—it’s a register that’s almost inexhaustible. Art is not only the object of contemplation; for those who practice it, it is a form of action that is a little like practicing sports. Painters feel the stickiness of the paint they are mixing on the palette or spreading on the canvas.”³⁷ Art brings the transindividual directly back to the preindividual and then to the collective. The collective is touched, perhaps even transformed, by this work that recalls and reframes something that is shared only through each individuation. At its best, art is able to return something of the force, that is, the energy-information, of the preindividual back into collective relations. It is capable of reinserting the *apeiron*, a limitless “charge of indeterminacy,” to already individuated collective subjects through the creative return of the subject to an immersion in the world.³⁸

Artistic (no less than scientific or philosophical) invention makes parts of the cultural and collective world key points through which to collectively navigate through social, political, and natural crises, to aim

again at the restoration of a preindividual, less and less divided into figure and ground, more restored to its metastable order. Art resituates metastability within and between social and collective existence, returning to collective life what it has left behind of qualities, relations, sensations. Art enables us to feel something of the more-than-unity from which we came, passions and affects the ancients sought to diminish in us to make us more amenable to the universe's rational order. Simondon outlines, even if briefly, an aesthetics that represents life's affective relations to the world; he will also aim to develop the possibility of a new kind of ethics that addresses nature, that is, the relations between the forces of human subjects, in social and collective life, and the forces of the world, that addresses the earliest phases of individuation and their social consequences: "Nature is not the contrary of the Human but the first phase of being" (*IPC* 196), the first phase that never abides but transforms itself continually through physical, biological, psychic, and collective transductions. If art comes from the individual's immersion in a transindividual that can address what a collective shares, it also directs itself, above all, to the future that the object aims to bring into being: "every inventor in the matter of art is futurist to a certain extent, which means that he exceeds the *hic et nunc* of needs and ends by enlisting in the created object sources of effects that live and multiply themselves in the work: the creator is sensitive to the virtual, to what demands from the ground of time and in the tightly situated humbleness of a place, the process of the future and the amplitude of the world as a place of manifestation" (*IPC* 182).

To the extent that humans can return to the preindividual forces that make all identities provisional, in art, in thought, in technics and other social practices, it is because the preindividual is both material and ideal without distinction, both identity and the undoing of identity, being only through continuous becoming. This is true not only for subjects and collectives but also for all the products of subjects and collectives—art works, technical objects and ensembles, social and cultural practices—that reticulate the preindividual forces from which they are formed into objects, practices, individuals, and collectives capable of bringing some kind of life to the preindividual that the transindividual bears.

Ethics, for Simondon, is part of this movement of temporal and spatial looping—where the being “returns” without ever leaving them to the forces that made it possible in order to constitute for a collective a new field of resonances and amplifications in which more inclusive acts are possible. Acts are more inclusive in the sense that they bring to use, and change, preindividual forces that have been left aside in earlier geneses and in the sense that, radiating from a particular point, more and more individuals within a society become capable of generating inventions of their own. These acts need not be inclusive of more subjects but of more of the transindividual, of what is subtracted from the individual as subject yet shared by all subjects. Ethics is not a morality of actions but Spinozan affirmation of the powers of acting (and being acted on) that are enhanced and amplified by the renewal of the forces from which all individuality and collectivity come. Like aesthetics, ethics is not comprised of ethical objects (whether acts, attitudes, beliefs, norms) but a capacity to bring ways of living into being, to enable ways of living to transform themselves, to address their tensions and invent other, more inclusive, ways of living: in ethics he seeks the “the preindividual of norms” (*IGPB* 244), the ability of norms to transform themselves, to undertake transductions, structural and historical becomings that address the human’s (individual and collective) ongoing and ever-changing, ever-complexifying relations to the problem-generating world it occupies.

Ethics is the power of the amplification of acts that may connect individuals outside of and beyond their place within society, the power of affirming a “singular point in an open infinity of relations” (*IPC* 506), which connects to the singularity of each subject in a field of relations with others.³⁹ Like aesthetics, ethics is the capacity to make the preindividual resonate into higher orders of energy/information so that it may touch and set off new becomings in the processes of (endless) individuation. As a mode of valuing acts, ethics is a reflective understanding that “the value of an act is its amplitude, its capacity for transductive spacing” (*IPC* 334m16), that is, an act has value to the extent that it affects and amplifies other acts. Ethics is nothing other than the affirmation of the inventions of life in all its forms, the setting into resonance of their differences, the reactivation of the openness of

the preindividual and the creation of new solutions to tensions, which generate new forms of living.⁴⁰

Like the tradition that precedes him, Simondon proposes a special place for philosophy within the schema of endless individuations and their potential for further individuations, mediating with ever finer, more porous, and nuanced borders between interior milieu and exterior milieu. Philosophy, the discipline of reflexive thinking—Deleuze’s construction of concepts and the plane of immanence they populate—finds and accompanies the divisions the preindividual continually traverses and complicates—inside/outside, form/matter, subject/object, even technics/religion—and aims to reunite them with the order that formed them, to restore to them the power of their genesis.⁴¹

Philosophy, the thinking that accompanies the most primordial divisions of the real, is made possible by the preindividual as much as any other individuated practice, and contains within itself the power of thought, a power that can, by degrees, be refined, as Spinoza understood, by comprehending and reflecting on the place of the singular in the orders of ontogenesis. The power of thinking is as much the result of an ontogenesis as its objects of reflection—indeed, this is why thought is as transductive as its investigative objects. If technics and religion elaborate human life in two different directions, and science and ethics attempt to provide more general knowledge of the localized formations of the history of technics and the history of religion, it is philosophy, the capacity for rigorous and self-reflective thought, the orientation and ordering of sense, the forward and open direction of concepts, that enables, if not the perfection of technics and religion—an infinite task—then at least a knowledge of “the real meaning of these two geneses” (*IPC* 334) made possible by the capacity, not of the human, but of the preindividual, to make thought address the division between interior and exterior, figure and ground. Philosophy is an ethics, a way of thinking the genesis and fundamental potential for integration (through transformation) of these divisions:

Reflexive thinking has a mission to redress and refine the successive waves of genesis by which the primitive unity of the relation of man to the world becomes divided and comes to sustain science and ethics

through technics and religion, between which aesthetic thinking develops. In these successive divisions, primitive unity would be lost if science and ethics were not able to come together at the end of the genesis; philosophical thinking is inserted between theoretical thinking and practical thinking, in the extension of aesthetic thinking and of the original magical unity.

(IPC 409)

Philosophy, in other words, a “transfer without loss,”⁴² extends the aesthetic work of expanding qualities and intensities, the scientific work of ordering principles and regularities, the technical labor of inventing machines and the networks they require, and the ethical function of touching and transforming individuals and collectives. It is the conceptual accompaniment of the individuation of each of these orders and its own genesis recapitulates that of every other individuation. But its project is also synthetic: to bring together disparate domains not through reduction but through understanding the orders of complexity that make philosophy itself, reflective thought of the world, possible. It is a “transcategorical knowledge, which supposes a theory of knowledge that would be a close kin of a truly realist idealism.”⁴³ Philosophy must be understood, in Simondon’s terms (rather than my own) as a “realist idealism” that restores both the force of reality and its ideality to the geneses of orders of being. As such, philosophy, as much as technics and religion, participates in a movement that is both ethical and aesthetic, that opens life out onto the real from which it is drawn. In Simondon’s words, which conclude his remarkable text on the transformation of ontology into ontogenesis, *L’individu et sa genèse physico-biologique*, he claims that ethics is precisely the affirmation of this movement of individuation, and it is the affirmation of acts that amplify and reticulate the preindividual and its forces most directly through the inventions of life: “Ethics expresses the sense of perpetual individuation, the stability of becoming which is that of being as preindividual, individuating itself and tending toward the continuity which reconstructs under a form of organized communication a reality as vast as the preindividual system. Through the individual, amplicatory transfer [perhaps like a tightrope or bridge?] coming from Nature, societies become a World” (247).